

TULSK GAELIC MEDIEVAL COMPLEX, CO. ROSCOMMON

CONSERVATION MANAGEMENT PLAN

VOLUME 1



An Action of the County Roscommon Heritage Plan

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C O N T E N T S

	Page
EXECUTIVE SUMMARY.....	6
1. THE TULSK GAEIC MEDIEVAL COMPLEX CONSERVATION MANAGEMENT PLAN: AN INTRODUCTION	8
2. UNDERSTANDING THE SITE	12
3. WHY HERITAGE MATTERS TO TULSK.....	23
4. ASSESSMENT OF SIGNIFICANCE.....	24
5. GENERAL CONSERVATION PRINCIPLES.....	32
6. OPPORTUNITIES, VULNERABILITIES AND RECOMMENDED ACTIONS	34
7. TULSK GAEIC MEDIEVAL COMPLEX ACTION PLAN 2009-2011	69
8. BIBLIOGRAPHY	77

VOLUME 2

APPENDIX 1	TULSK PRIORY CONSERVATION WORKS
APPENDIX 2	SUMMARY OF ECOLOGY MANAGEMENT MEASURES
APPENDIX 3	BAT EVALUATION OF TULSK PRIORY
APPENDIX 4	EXAMPLES OF QUINQUENNIAL SURVEYS OR INSPECTIONS
APPENDIX 5	STRUCTURAL REPAIR DETAILS AND MORTAR SPECIFICATION
APPENDIX 6	LIST OF SPECIES RECORDED OR REFERRED TO IN THIS REPORT
APPENDIX 7	TULSK STEERING GROUP AND CONSULTEEs
APPENDIX 8	LEGAL STATUS OF THE TULSK MONUMENTS, AND OTHER MATTERS
APPENDIX 9	MANAGED RURAL WALKWAYS
APPENDIX 10	COST ESTIMATES FOR CONSERVATION WORK PACKAGES

Figure 1: Site location map (© Roscommon County Council). The CMP study area is outlined in red. Not to scale.....	9
Figure 2: Plan showing location of monuments in Tusk.....	10
Figure 3: Tusk Priory and Graveyard	13
Figure 4: Tusk Castle.....	13
Figure 5: Tusk Earthwork, with Cruachan Aí in the background	14
Figure 6: Tusk Priory (plan courtesy of The Discovery Programme)	15
Figure 7: Line drawing of Tusk Priory from 1791.....	16
Figure 8: Bigari's drawing of the south elevation of the priory at Tusk.....	16
Figure 9: Tusk Priory, looking north-west.....	17

Figure 10: Tulsk as depicted on the six-inch to one mile Ordnance Survey Ireland series of 1837.....	18
Figure 11: Tulsk as depicted on the six-inch to one mile Ordnance Survey Ireland series of 1890-1913	18
Figure 12: Ivy growth across the priory is systemic. This is the mass of stems left after initial trimming in September 2008.....	35
Figure 13: Plan showing location of masonry sections referred to in this report.....	36
Figure 14: Transept north gable/nave south wall	37
Figure 15: The cylindrical column has a number of vertical cracks in the stonework	37
Figure 16: West elevation of the tower wall.....	39
Figure 17: The south wall of the tower house	40
Figure 18: The Taaffe Mausoleum	41
Figure 19: The Grace Mausoleum lies to the centre-left in this image, and the Taaffe Mausoleum to the right.	42
Figure 20: The west elevation of the Grace Mausoleum.....	42
Figure 21: Inscribed graffiti inside the entrance to the Grace Mausoleum.....	43
Figure 22: Enclosure in south-western part of the graveyard	44
Figure 23: The cruciform path through the site	45
Figure 24: Modern plot under construction.....	46
Figure 25: Some localised damage to the grave-markers has occurred	46
Figure 26: Moss and lichen add to the character of graveyards	47
Figure 27: How the site is floodlit should be reconsidered.....	49
Figure 28: Tulsk Castle in the background, viewed from Tulsk Earthwork	55
Figure 29: Recent archaeological excavation by the Discovery Programme have revealed the substantial foundations to a tower house	56
Figure 30: Channel of flow from the <i>Tobarnakirky</i> well. Flows at time of visit were reported to be much higher than usual for time of year.	60

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EXECUTIVE SUMMARY

The Tusk Gaelic Medieval Complex Conservation Management Plan (CMP) assesses three historic monuments – Tusk Priory, Tusk Castle and Tusk Earthwork – which form the core of the visible remains for an important settlement area during the medieval period. The three main monuments are tightly grouped near the centre of Tusk village – the priory to the south of the N5 main road, and the other two monuments lie on the opposite side of the road. Almost centrally placed between the three is the Cruachan Aí heritage centre, a combination of a village community centre with a café and a heritage centre for the surrounding archaeological landscape. Gifford's commission specifically focuses on the three historic monuments and the wider study area, but of necessity the heritage centre is also considered in detail and has come to feature in a pivotal way in this CMP.

The three monuments are historically of great interest. Tusk Fort, a raised ringfort referred to throughout this CMP as Tusk Earthwork, has been shown by excavation to include the later addition of a medieval tower-house and still later levels relating to Elizabethan-period garrisoning works, whilst the priory and the castle are traditionally associated with being possessions of the O'Connor Roe kings of Connacht. In the wider landscape, there are a large number and wide variety of other archaeological and historic sites, pre-eminent amongst which is the prehistoric complex at Rathcroghan, also called Cruachan, which is the starting place for the Táin Bó Cúailnge myth cycle. The Cruachan Aí centre acts principally as a visitor and interpretation centre for Rathcroghan.

Despite their significance, the three monuments are not well-known. Neither the castle nor the earthwork are accessible to the public and, although accessible, the priory is neither well-signed nor easily comprehensible to the passing visitor. The Cruachan Aí centre is also failing to deliver its full potential, and local stakeholders consulted in the preparation of this CMP unanimously felt that the heritage potential of the centre and the village is under-utilised. Most expressed the desire that the three monuments and the wider historic landscape could be used as a 'lever' or 'spark' for relatively modest heritage-led regeneration.

The conclusions of this CMP are that this is indeed a feasible objective. A successful transformation is likely to be aided by a re-branding of the Cruachan Aí centre to link it explicitly with the Táin Bó Cúailnge myth cycle, and by a revision and refurbishment of the interpretation area with this concept as its focus. In this way the myths told in the Táin can link the adjacent monuments through the central themes of kingship and burial.

Ideally, public access should be arranged to all three monuments. Tusk Castle and Tusk Earthwork are in private ownership, but the CMP explores various means by which limited and appropriate public access might be achieved. The castle is really an unknown quantity, but non-intrusive archaeological investigations might yield significant information at an affordable cost. The earthwork has been recently excavated, and this work has revealed the unexpected and visually very impressive remains of a medieval tower-house, arguably one of the seats of the O'Connor Roe kings of Connacht. Arranging the site for public access and interpretation would be relatively easily achieved in practical terms, although there would be work to do before ownership issues could be resolved to the satisfaction of all parties. These concerns are, however, reconcilable. Tusk Priory is publicly accessible – indeed, its graveyard is in use. However, the priory ruins are in urgent need of conservation – priority works are identified in this CMP and these, as well as necessary works for the graveyard and longer-term conservation and maintenance operations for the ruins, are identified and ordered into a three-year rolling programme.

All three monuments were also examined for their ecological interest. Species diversity was seen to be relatively low at the priory and earthwork, and this has probably arisen from the management and planting practices at both sites. However, there is scope for a number of measures which could readily increase species diversity as well as enhancing the appearance of the sites. In the priory site, there is

an opportunity for utilising some of the open ground that contains either very old graves or no obvious graves or markers. Here, grassland species could be encouraged through a variety of maintenance regimes. It is recommended that at first only a small part of the graveyard be devoted to the lowest mowing regime suggested in this CMP, as the untidy appearance of this might not be pleasing to all visitors. The protection of bat species and their habitat at the priory is a priority in terms of the planning of any future building maintenance or conservation at this site.

Tulsk Priory and Tulsk Earthwork might also benefit from a programme of tree-planting, subject to archaeological constraints. This would be a relatively low cost initiative, of long-term benefit for a number of reasons. The spring at Tulsk Earthwork (*Tobernakirky*) is an unusual and important feature and should be protected, as should the adjacent river.

A number of sources of funding, which would be suitable for various elements of the works identified, are presented. However, each funding-stream has restrictions and constraints on eligibility and how implementation should be arranged. Consequently, the client team should be responsible for matching specific funding sources to particular works listed in this CMP, and the back part of this report is ordered to aid the client team in this process.

Achieving the works detailed in the CMP will probably necessitate a re-alignment of the management of the Cruachan Aí centre. However, the works suggested herein are broadly in accord with the aims and objectives of the centre and the individuals consulted. The detailed work on centre management (which is beyond the scope of the CMP) is not believed to be fundamentally difficult to achieve.

During the course of preparing this CMP, and most especially during the three days of consultation undertaken in September 2008, many people expressed the conviction that a fundamental improvement to the village of Tulsk could be achieved. The proposals detailed in this CMP are designed to promote this improvement. Whilst the implementation of the CMP is likely to contribute to, and support, more widespread village improvements, this is unlikely to occur rapidly and it should be recognised that any economic regeneration is likely to be relatively modest.

1. THE TULSK GAELIC MEDIEVAL COMPLEX CONSERVATION MANAGEMENT PLAN: AN INTRODUCTION

Aims and Objectives

This Conservation Management Plan (CMP) for Tusk Gaelic Medieval Complex, Co Roscommon, provides a framework for the conservation and management of three medieval monuments (Tusk Priory, Tusk Castle and Tusk Earthwork) within the village of Tusk, and considers other monuments of similar age in the locality. It also examines the role of a heritage centre in the village, Cruachan Aí, in the development of these monuments. The CMP has been prepared for the Heritage Office of Roscommon County Council (the client), for use by the Tusk Steering Group.

Understanding the nature, significance, condition and potential of heritage assets is the basis for rational decisions about their management and use. A sound, but succinct, understanding of a heritage asset is therefore essential in determining why and how it is significant. This in turn highlights opportunities and threats, constraints on change, and what decisions about conservation and management are required.

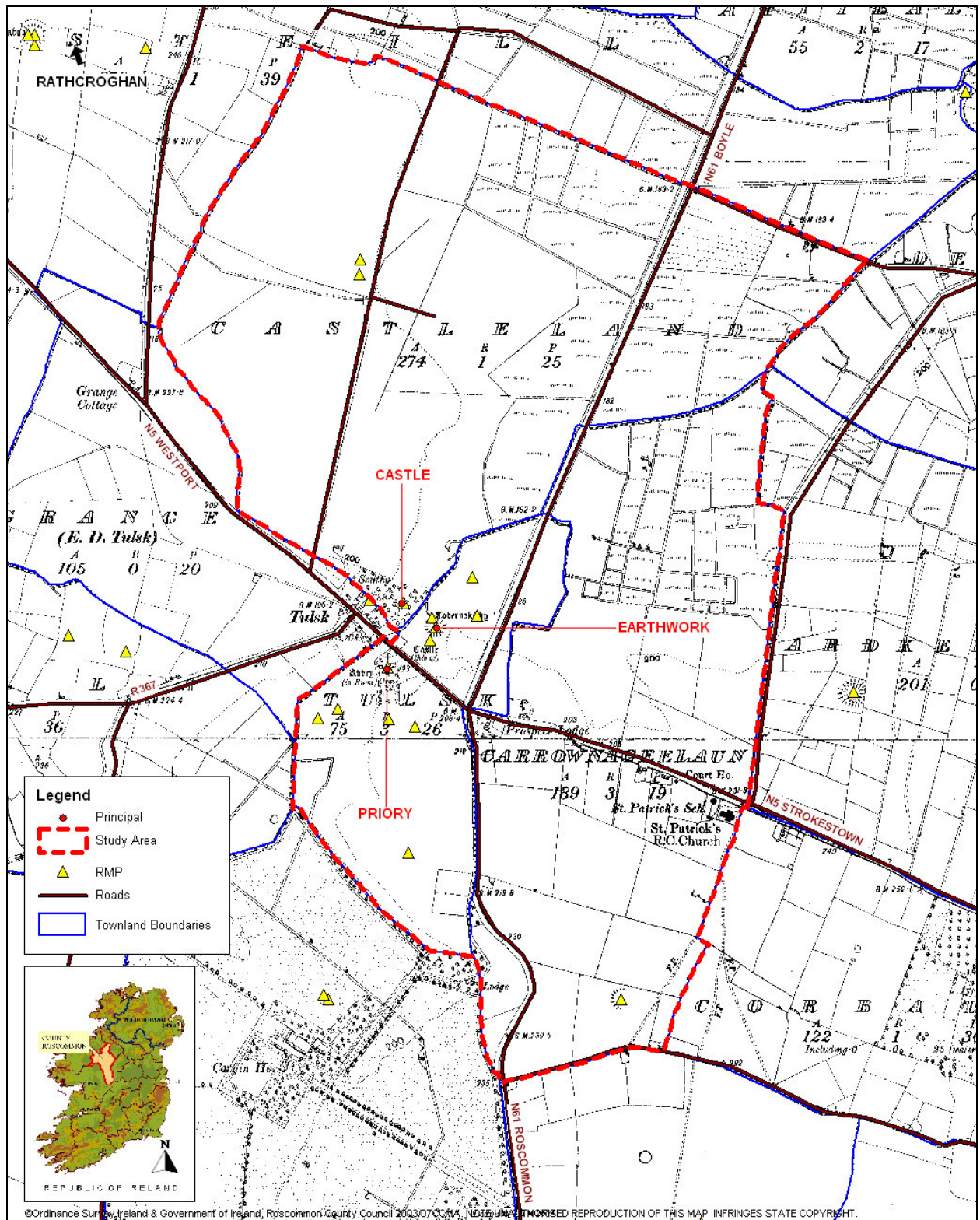


Figure 1: Site location map (© Roscommon County Council). The CMP study area is outlined in red. Not to scale.

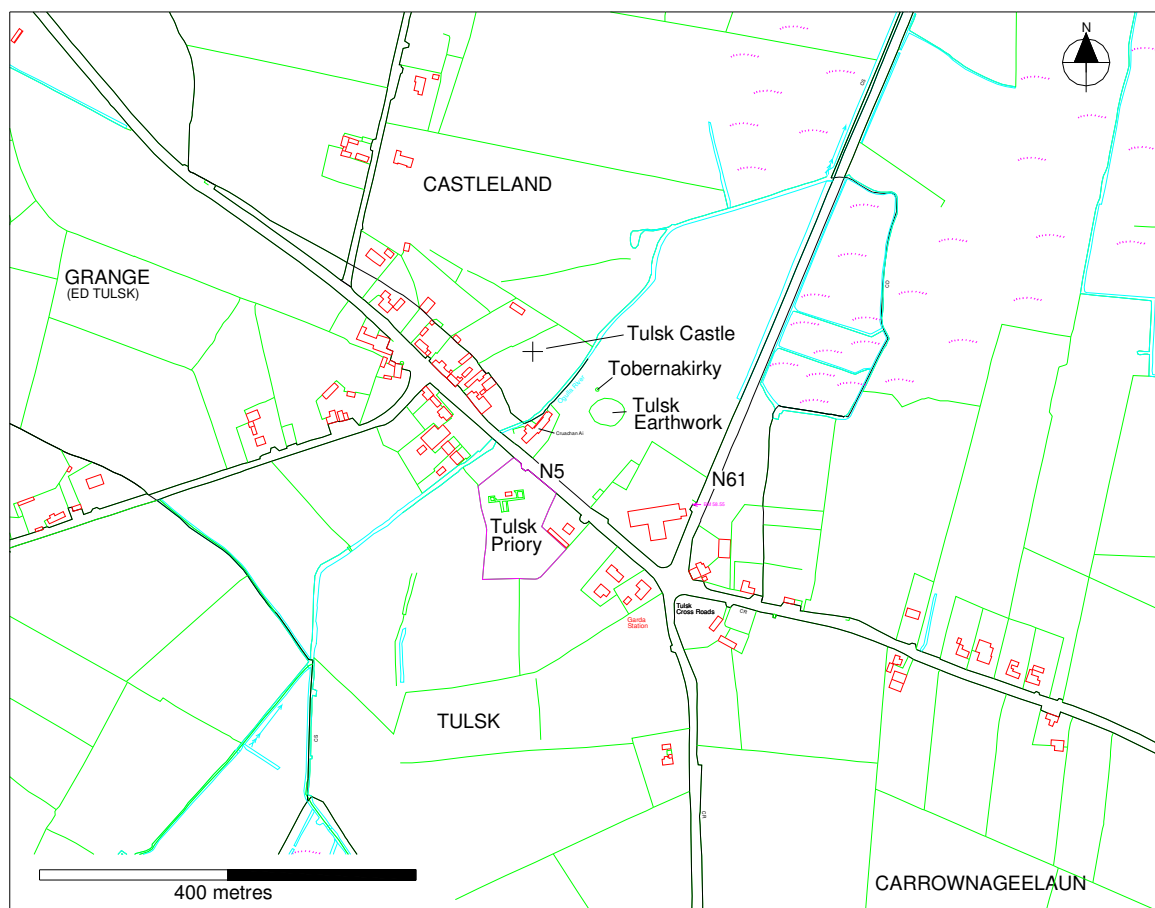


Figure 2: Plan showing location of monuments in Tusk

Additionally, planned maintenance and repair programmes are essential for all heritage assets, and should be based on regular, detailed inspections and condition reports. These can only be arrived at by a sound understanding of an asset's significance and importance.

The aims of this CMP are therefore to understand the nature, significance, condition and potential of the monuments at Tusk and to provide a concrete and realistic 'road map' that shows the direction the community and all stakeholders should go with these monuments in the future, both immediately and in the longer term.

Methodology

The structure of this plan follows the sequence of analytical steps presented by James Semple Kerr (in the 1996 publication *The Conservation Plan – A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*):

- Understanding – including archaeological, historical, ecological, planning, structural and maintenance perspectives;
- Significance – encompassing both the overall importance of Tusk Gaelic Medieval Complex as well as the individual importance of its elements;
- Issues – identifying the factors that could impact upon the significance of the elements;
- Policies – defining the principles to protect and enhance the elements and their settings;
- Implementation – setting out a prioritised action plan.

Throughout the preparation of this plan the results of both stakeholder and public consultation are included, as these provide a vital means of understanding how the monuments in Tusk are currently valued and used, as well as ideas and concerns for their future.

The plan has therefore been based on documentary (primarily secondary sources) research, site inspections in July and September 2008, and a condition survey and ecological assessment in September 2008. The raw data gathered by these methods has then been refined and ordered through consultation with relevant individuals, organisations and the public.

On completion of key stages of the plan a workshop was held with the Tusk Steering Group to share knowledge and discuss and agree the results arising. The members of the Tusk Steering Group are listed in Appendix 5.

It should be noted that the information given in this report on specific monuments/structures is current at the time of issue, but that the Department of the Environment, Heritage and Local Government (DoEHLG) should be consulted for the most up-to-date information.

Environmental methodology

The walkover field surveys were used to identify, describe, map and evaluate habitats within Tusk Priory and Tusk Earthwork. Tusk Castle was not visited, although an inspection was made from outside its boundary. The field surveys included an assessment of the use of the area, including dwellings, visitor facilities and access to these. Land-use and potential land-use were recorded. Habitats were identified, mapped and classified and dominant plant species noted were conducted according to the guidelines given by the Joint Nature Conservation Committee (JNCC, 1993). Signs of mammals and birds seen were recorded as part of these surveys – however, a dedicated bird survey could not be carried out at this season. Aquatic habitat was assessed for fisheries value, riparian habitat quality and potential for protected species. Habitat classification followed Fossitt (2000) and the floral nomenclature used follows Webb, Parnell and Doogue (1996) and Scannell and Synnott (1987). A third survey took place in October 2008. The purpose of this was to evaluate the site in terms of existing and potential habitat for bat species.

2. UNDERSTANDING THE SITE

The three medieval monuments at Tusk, Co. Roscommon, lie within the core of a dispersed village which is arranged along the east-to-west N5 road between Longford and Westport. The village lies at a crossroads between this major route and the N61, which connects Roscommon town to the south with Boyle to the north. The village lies in the townlands of Castleland, Grange, Tusk, Carrownageelaun, all of which lie within the Barony of Roscommon.

Summary of the history of Tusk

The historical background to Tusk (*Tuilsce*) is admirably summarised in Brady *et al* (2005, 40-64). In *precis*, the earliest settlement known is evidenced by the pair of *fulachta fia* that lie within the study area and north of Tusk but, more circumstantially, by the town's situation within a network of ancient routeways that passed through the prehistoric ritual landscape. The first reference to Tusk may appear in *Cath Maighe Léna*, an early modern saga which has been dated to between the second half of the 13th century and the first part of the 14th century. The first annalistic references occur roughly a century later, where Tusk appears as an O'Connor stronghold, with the earliest entry being a record of the building of Tusk Castle in 1406 by O'Connor Roe. That same year the castle was destroyed by O'Connor Sligo and his MacDonagh allies as part of the ongoing struggle between O'Connor Roe and O'Connor Don. But it must have been rebuilt, because it appears regularly in the annals for the next hundred years. During this time it appears to have been in the hands of the O'Connor Roes, although falling intermittently into the hands of the O'Connor Dons. More general references occur until 1582, when the English became established, after which it is referenced as an English garrison.

The priory was founded in 1448 as a Dominican house. The founder is disputed, but was either a member of the MacDowells, or Felim, son of Felim Clery O'Connor. There is tenuous evidence to suggest that there may have been an ecclesiastical establishment at Tusk before the foundation of the Dominican priory – a reference in the Registry of Clonmacnoise links a Cathal O'Connor to a chapel there. It is possible that this was Cathal Crovderg, who died in 1224.

In 1570 the site of the house of the friars at Tusk was leased to Patrick Cusack of Gerrardsywon, of Co. Meath. By 1574 the friars had obtained a lease of their former house and possessions from the baron of Devlin, but four years later they had gone, apparently never to return. A reference in 1582 to the construction of a house at Tusk, apparently by English government troops, is likely to relate to fortification works at the defunct priory, and repairs were reported at Tusk Priory in 1595. It was probably at this time that the tower house was constructed at the east end of the chancel.

A *fiant* of incorporation was made out for Tusk in 1612, and a charter of incorporation was received from Charles II in 1674, making Tusk a borough. The charter also conferred the elective franchise, with power to hold a court of record and a weekly market.

Tusk today is best described as a roadside settlement, although the parish is large and settlement is dispersed. The 'historic' village centre comprises two rows of shops and houses, principally of 19th-century date, which straddle the N5. A petrol station and car sales facility are situated at the crossroads of this route and the N61, and the village continues eastwards of the crossroads, towards Strokestown. It is in this area of the village that the Church of Saints Eithne & Fidelma, built in 1841, and Tusk National School (1909) may be found.



Figure 3: Tusk Priory and Graveyard



Figure 4: Tusk Castle



Figure 5: Tusk Earthwork, with Cruachan Aí in the background

Property descriptions

Tusk Priory and Graveyard

Tusk Priory is situated to the south-east of the village core of Tusk, and immediately east of the Ogulla River, which flows in a north-to-south direction through the village. It is a Recorded Monument (Record of Monuments and Places [RMP] RO022-114006-) and a Protected Structure (Protected Structure 02200083). A number of other designations also apply to parts of the priory and its associated structures, and these are listed in Appendix 8 of this report.

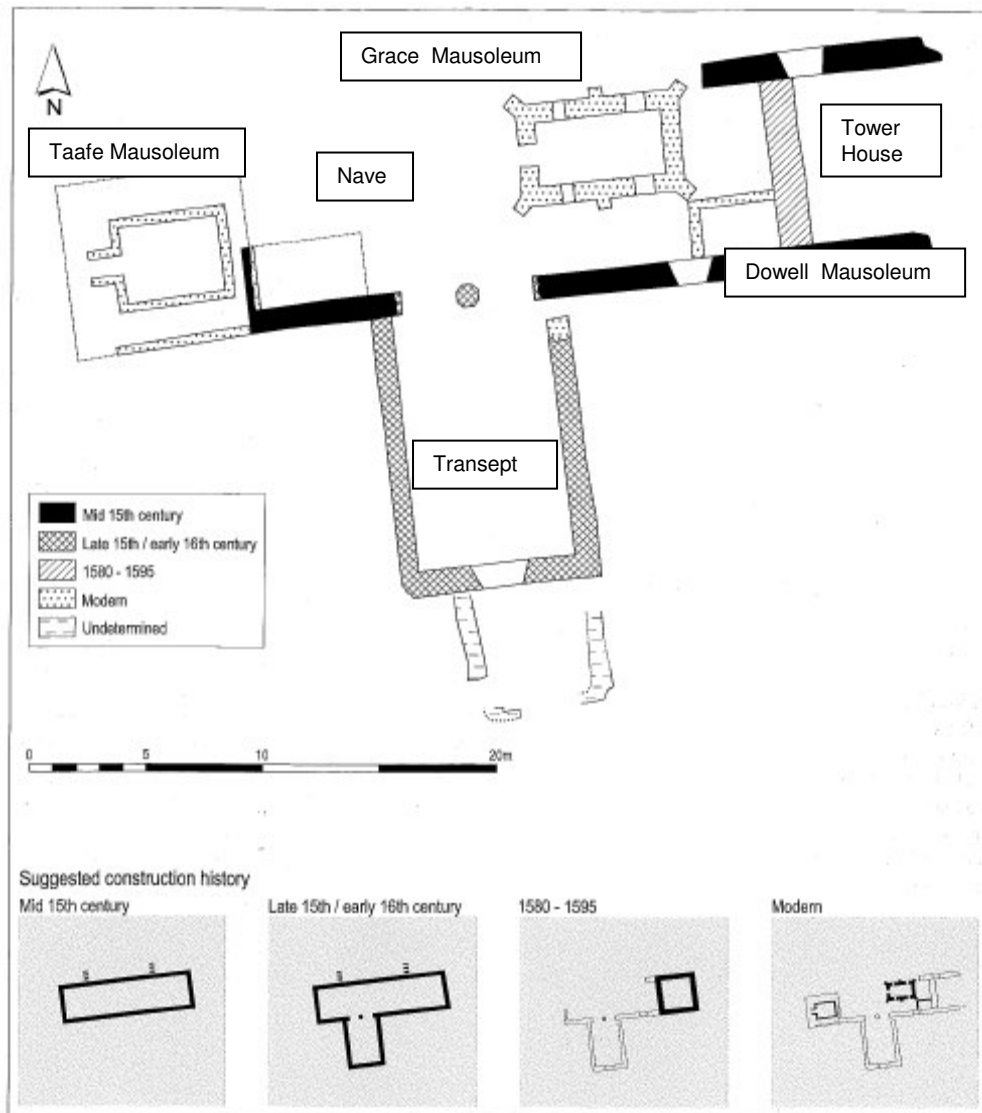


Figure 6: Tusk Priory (plan courtesy of The Discovery Programme)

Today the standing remains of the priory comprise the nave south wall, the south transept walls, a short easterly section of the north nave wall and an inserted wall which formed part of a tower house. A low section of the west nave wall, which has been refaced, also survives. There is also some evidence for a cloister to the north of the priory, but there are no standing remains. It is axiomatic that the visible remains are only one part of a greater archaeological resource which now lies buried.

It is of interest to compare the standing remains with those depicted in historic drawings. Cocking's line drawing of 1791 is somewhat indistinct, but appears to show ruins similar to those visible today, the notable difference being loss of stones from the north gable wall of the transept and possibly one or two lost courses from the top of the south nave wall. This suggests little deterioration in the last 220 years (a third of the building's period of existence).

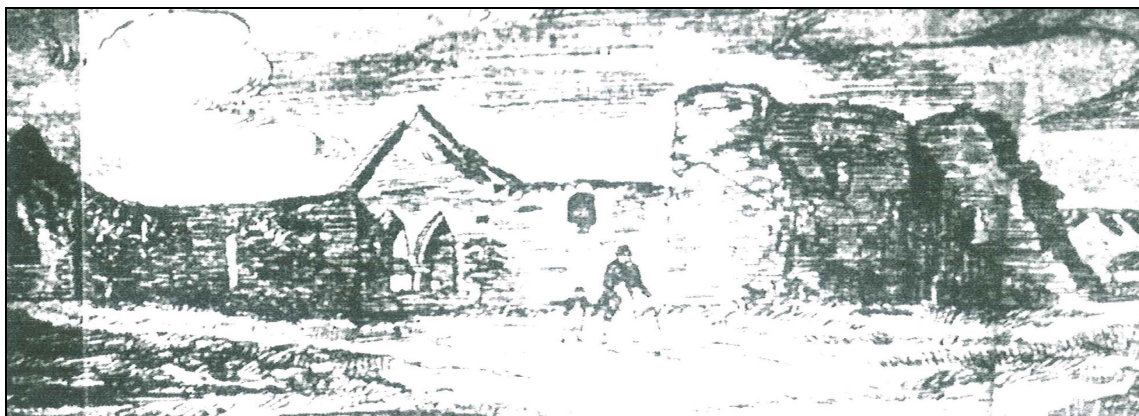


Figure 7: Line drawing of Tulsk Priory from 1791

Bigari's drawing (likely to have been painted in the years 1710 -1770) shows a largely intact west elevation and indicates the north nave wall was still present. However, his depiction of the east wall of the transept surely demonstrates artistic licence as he draws it with reduced height and moves the pier so that more of the two arches in the nave wall are visible. Similarly, he reduced the east end of the south nave wall to reveal more of the remains of the tower house (including an upper window in the north nave wall, which has since collapsed). This begs the question as to whether the west and north walls of the nave existed when he drew them, only to fall sometime before 1791, or were added by him for artistic purposes.

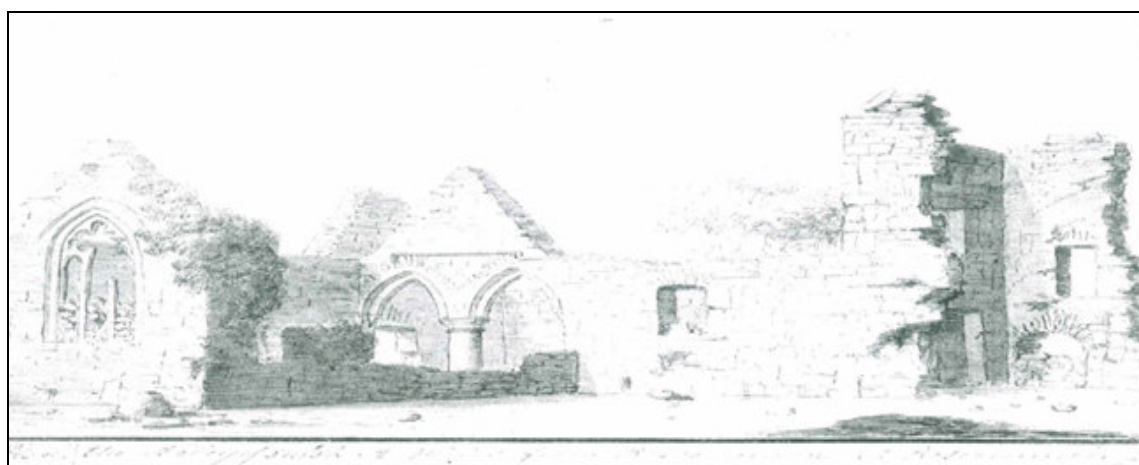


Figure 8: Bigari's drawing of the south elevation of the priory at Tulsk

The nave is 30m long and 7.2m wide. The transept is 11m long in a north-to-south direction and 6.6m wide. The walls vary in width between 800mm and 1200mm, although the upper section of the north gable to the transept is much thinner, possibly being only 400-500mm thick. The thickness of the upper section of the south gable wall to the transept could not be seen during the inspection. The nave south wall and transept west wall are approximately 4m tall, whilst the gables and tower house walls are estimated to be about 8m tall.

The walls of the priory are built from limestone, roughly cut and coursed and laid in a lime mortar. In places, a hard cementitious mortar has been used to repoint joints. Two pointed arches are formed in dressed stone in the south wall of the nave. No roof or floors remain.

The nature of the foundations are unknown, but would typically comprise coursed stonework to a depth of 300-600mm, and possibly deeper if the ground was recognised to be poor, founded on stone rubble, possibly including a weak lime binder.

There is a noticeable step change in level along the south nave wall; the ground level in the nave is some 600mm lower than in the transept or outside the south wall.

The Grace Mausoleum, located within the nave, is a small rectangular building measuring approximately 7m x 4.5m and 2.8m in height at the eaves. It is built of roughly coursed stone with a pointed arch roof visible internally. Externally, it is clad with dressed stone with a buttress at each corner, and in the centre of the north and south elevations. The pair of west windows have pointed arches while the pair of east arches are false and only formed in the outer cladding. The roof is clad with three rows of large stone flags.



Figure 9: Tulsk Priory, looking north-west



Figure 10: Tusk as depicted on the six-inch to one mile Ordnance Survey Ireland series of 1837

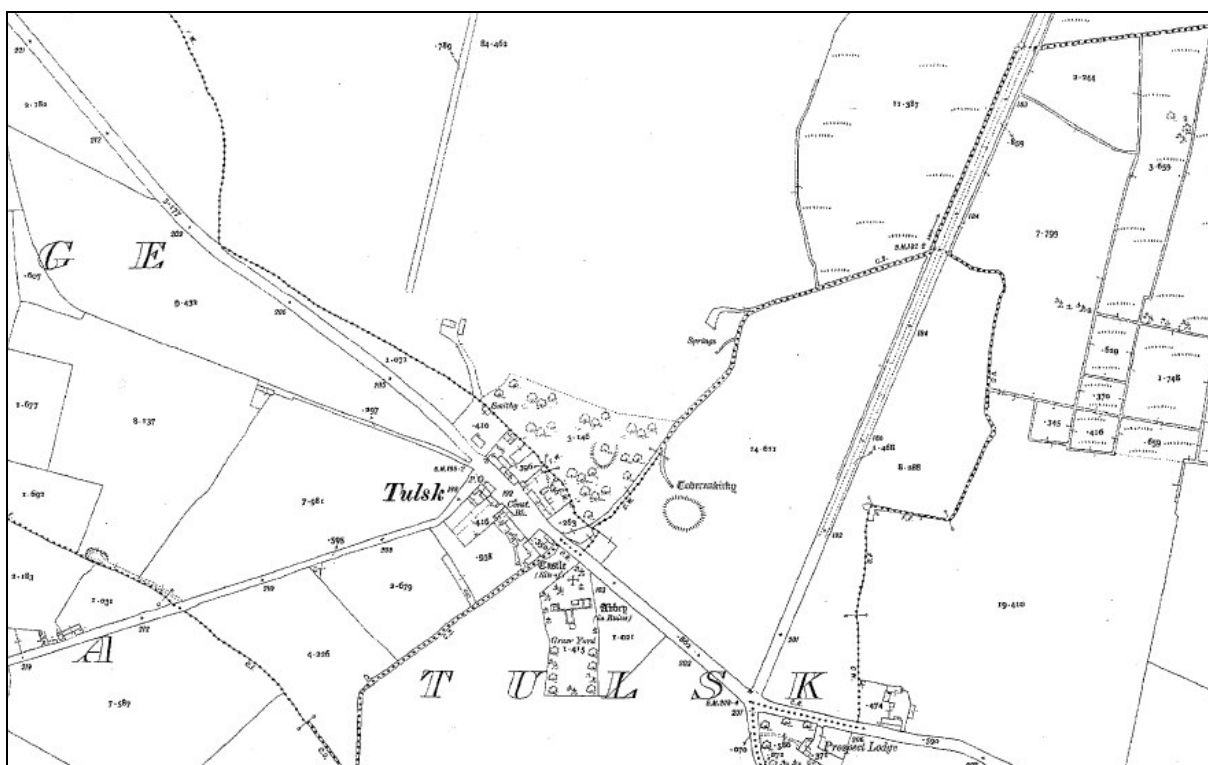


Figure 11: Tusk as depicted on the six-inch to one mile Ordnance Survey Ireland series of 1890-1913

Tulsk Castle

The name Tulsk Castle describes an earthwork which lies on the opposite (northern) side of the N5 from Tulsk Priory. It is a Recorded Monument (RO022-114001-). This site is traditionally associated with ownership by the O'Connor septs, and for many years has been seen as the site of the castle mentioned in annals. However, recent work to Tulsk Earthwork has led to the suggestion that Tulsk Castle may, in fact, be an early modern house.

It lies within a field of 1.35 acres which is set back behind a row of 19th-century houses and commercial premises – the village of Tulsk. The Ogulla River forms the south-eastern boundary of the field, and building work has recently been undertaken to the north-western bank of the river. This work has provided a stone wall which acts as a revetment to a gravelled track. The southern boundary of the site is formed by a high stone wall which gives the appearance of a post-medieval demesne wall. This is arched to allow the river to flow through it.

The monument itself comprises a prominent, oval-shaped mound with evidence of collapsed stone walls internally. Several mature trees are situated on and around the bank. The siting of this monument is dramatised by the mature trees, river and the opposing monument of Tulsk Earthwork, which is somewhat larger and more monumental in appearance to the castle site.

Tulsk Earthwork

Like Tulsk Castle, Tulsk Earthwork (designated as a Ringfort-Rath) is set back from the N5 and the Ogulla River. It lies in a field of 7.4 acres which sits in the north-western angle of the N5 and N61 roads. The mound is oval-shaped in plan, and a spring (*Tobernakirky*) rises on its north-western side. The spring flows directly into the nearby Ogulla River. It is a Recorded Monument (RMP RO022-114003-) and, like Tulsk Priory, has a number of other designations (see Appendix 6).

The monument may indeed be a rath in origin. However, successive seasons of archaeological survey and excavation by the Discovery Programme have revealed a much more complicated picture. (The Discovery Programme is a public institution for advanced research in Irish archaeology). The monument may indeed in origin be a rath (generally defined as a circular or oval area surrounded by an earthen bank with an external fosse, and dating the period from 500 to 1000 AD). However, the site retains clear evidence for a prehistoric stratum that predates the ringfort stage. The site also retains evidence for several episodes of use during the later medieval period, when the earthwork was remodelled extensively to include the construction of a c.20m-long by c.10m-wide masonry tower on its eastern perimeter; the first of at least two building phases from the c.15th century. Finally, during the late 16th century, the site was again redesigned to accommodate garrisoning works associated with Sir Richard Bingham, the Queen's Governor to Connacht, who was established in Tulsk in the 1590s.

Cruachan Aí Centre

The Cruachan Aí Centre occupies a central location within the village of Tulsk, being set beside the N5 at the head of the village core if one is heading west. It also borders the Ogulla River. It markets itself as a conference and interpretative centre for the Celtic royal complex of Cruachan, seat of the High Kings of Connacht.

The centre opened in April 1999 under the stewardship of Tulsk Action Group, with a brief to 'act as an introduction for the non-expert visitor who can then freely visit this magical ritual landscape...'. A secondary aim was to act as a focus for community activities.

The project was developed using a three-strand approach to access support and funding from state agencies and the local authority. The first two strands concerned funding arrangements, whilst the third was concerned with access to the various monuments. The DoEHLG was to take the lead in funding and providing walkways and interpretation around the monuments to develop a visitor trail (Bane Marketing 2004, 2). The Bane report (*ibid.*) reported that 'Since the late 1990s, the matter of negotiating access to the monuments and the provision of heritage trails around them has received little attention. This critical issue must be resolved if Cruachan Aí is to have any chance of success in identifying, communicating with and selling to potential niche markets.'

The centre incorporates a café, the operation and tenure of which has proved problematic. Bane (2004, 3) reported that in the period 2000-2003 the café had contributed well over 60% of the income, followed by the gift shop and ticket sales. Bane reported that in the peak summer months over 90% of those visiting the exhibition also visited the café. The Bane report identified that the centre was not making a profit and 'would appear unlikely to do so in the near future'. It was, and is, heavily dependant upon grant and financial support.

In common with many other visitor attractions, the projected visitor numbers exceeded by a factor of ten or more the actual attendance for the years 2001 to 2003. This shortfall underlines the importance of fundamental change being implemented.

The wider study area

The wider area is remarkably rich in archaeological and historical sites – there are over 200 within a four-mile squared area known as the royal complex of Cruachan. Although there are monuments from many phases, the majority fall into three periods – the Iron Age, the Early Medieval and the medieval.

The most celebrated monument is Rathcroghan mound, the legendary site of the Iron Age's Queen Maeve and King Aillil's great hall, and the apparent centrepiece of a major centre of ritual monuments. The mound is situated north-west of Tulsk and dates from a number of different periods, although it appears to have been of major prominence in the Iron Age. The Rathcroghan Archaeological Complex has been the subject of a recent Conservation Study commissioned by the DoEHLG (Oxford Archaeology 2007), and the mound and an area immediately surrounding it has very recently been brought under State ownership by the Office of Public Works, DoEHLG. The monument is of major national significance.

Other monuments of particular note include Daithi's Mound (the reputed burial place of the last King of Ireland), which is a ring barrow and standing stone. The barrow is probably of Iron Age date. Oweynagat is a souterrain within a burial mound, and is noted for containing two lintels bearing Ogham inscriptions - the earliest surviving alphabet in Ireland. A striking element of the archaeological landscape is a relict field complex around Rathcroghan which in some cases respects earlier monuments. It has been suggested that the fields are, at least in part, medieval in date.

Of more immediate relevance to the medieval complex at Tulsk is a collection of monuments on the hill of Carns, which lies to the south of Tulsk. Carnfree is celebrated as the inauguration place of the Kings of Connacht, and was used as late as 1641. Although the mound itself is of probable Bronze Age date, the Proclamation Stone stood at the site until 1840. The prehistoric landscape of burial mounds which surround Carnfree are enveloped by another rectilinear field system that is in part of medieval date, and the remnants of a deserted settlement. A centrepiece of the dispersed settlement is the church site, which lies to the east of Carnfree. This area has benefited from a programme of investigation conducted by the Discovery Programme (McNeary and Shanahan 2008).

A full list of the Recorded Monuments within the Study Area shown on Fig. 1 is given in Appendix 8.

Current uses and condition

Tulsk Priory and Graveyard

The graveyard at Tulsk Priory is active as a burial ground, and is well-tended. The priory buildings are ruinous and not in use, although part of the Grace Mausoleum is used to store grounds maintenance equipment.

A site inspection of the ruined building was undertaken from ground level by Gifford in September 2008. No investigation, opening up or high-level inspection have been undertaken as part of the preparation of this report.

The inspection provided five key observations:

- 1 The extensive ivy growth covering the priory is simultaneously protecting the ruin and breaking it apart;
- 2 The ruin is generally in a structurally reasonable condition. However, there are three areas where this structural stability is questionable. These are the north nave wall at the junction with the tower wall, the north gable of the transept (where the upper triangle of stonework appears slightly out of plumb and is potentially vulnerable) and the south gable wall to the transept which is unrestrained at high level;
- 3 Loose stones will continue to fall from the exposed ends and tops of walls, presenting a potential hazard for visitors and causing gradual deterioration;
- 4 There is no evidence of foundation failure or global structural instability; the foundations are adequate;
- 5 The stone core of the Grace Mausoleum is structurally sound. However, the external cladding elements, including the roof, walls and buttresses, are in a poor condition.

Tulsk Castle

The Tulsk Castle site is not currently in use, although there is evidence that it has been grazed until recently. The site appears to be in good condition.

Tulsk Earthwork

The field in which Tulsk Earthwork lies is grazed by sheep, although the monument is protected by a post-and-wire fence. The Discovery Programme's archaeological excavations have opened a rectangular, east-to-west aligned trench through the monument. This has resulted in large and impressive masonry remains being exposed, which are protected from the elements by plastic sheeting. Soil risings from the excavation are stored close by.

Legal Status, Framework and Ownership

The legal status of the various monuments described above and their location on the Ordnance Survey Ireland grid is listed in Appendix 8 of this report. Roscommon County Council is understood to be the owner of Tulsk Priory and Graveyard, Mr Eugene O'Connor owns Tulsk Castle and Mr Daniel McGonigle and Mr Andrew McGonigle own Tulsk Earthwork.

All of the monuments considered in this report are Recorded Monuments protected under the National Monuments Acts 1930-2004. It is important to note that when the owner or occupier of a property, or

any other person, proposes to carry out, or to cause, or to permit the carrying out of any work at or in relation to a Recorded Monument, they are required to give notice in writing to the Minister two months before commencing that work. The National Monuments Service of the DoEHLG is required to advise on whether the works can be carried out and, if so, how.

Consultation

A list of consultees is provided in Appendix 7 of this report.

3. WHY HERITAGE MATTERS TO TULSK

'Heritage' is about the values that people attach to places. Ireland's rich inheritance of historic buildings and other heritage assets reflects the history of its communities and public services. These buildings make a crucial contribution to the country's local identities and distinctiveness.

Heritage assets also help to enhance the quality of lives through their use for cultural, educational and leisure provision. As an expression of local pride, they matter to people.

The historic environment lies at the heart of our sense of place, and understanding how places change, and recognising the significance of their history, are key to successful and sustainable regeneration. Since places are not created in a vacuum and people need familiar elements, visual reminders and a sense of continuity, landscapes, streets, spaces, buildings and archaeological sites play a part in defining a sense of place.

Successful regeneration can bring social, economic and environmental life back to an area. It transforms places, strengthens a community's self-image and re-creates viable, attractive places which encourage sustained inward investment. The historic environment contributes to quality of life and enriches people's understanding of the diversity and changing nature of their community.

Understanding how places change, what makes them distinctive and the significance of their history is, then, the key to regeneration. Investing in heritage has many dividends. In 2002, for example, English Heritage published *The Heritage Dividend*, which claimed that £10,000 of government heritage investment leverages £46,000 match funding from private sector and public sources. Dublin City Council has undertaken similar research.

Heritage funding focuses on local centres, the hearts of our communities. Often heritage regeneration can create a context in which local people can work together and create opportunities for new local service delivery. Tusk Action Group is a fine example of this.

The built environment is one of the most tangible manifestations of local history, and a key determinant of character and identity. In a context of increasing globalisation and the standardisation of village and town centres, the historic built form gives an area uniqueness, character and distinctiveness. Attractive and distinct places are highly successful at attracting investment.

The heritage assets examined in this CMP, namely Tusk Priory, Tusk Castle and Tusk Earthwork, have the potential to define Tusk in the eyes of both local residents and the visitor. The sites can help to enhance the quality of lives through their use for cultural, educational and leisure provision. As an expression of local pride, they matter to people – and a representative sample of local residents' views solicited and ascertained in late September 2008 amply demonstrated this. The conservation and management proposals set out in this CMP would enhance the heritage assets concerned, and in so doing help to make Tusk a better place for residents, workers and visitors.

The local and regional planning framework, as expressed for example through the County Development Plan, recognises the value of heritage to Co. Roscommon, and the Co. Roscommon Heritage Plan (2004-2008) specifically addresses these heritage values and issues in a strategic and systematic way. The local political climate is therefore a positive one in which to further develop the opportunities Tusk offers. Detailed discussion of these opportunities and recommendations are provided below, but may be summarised as a programme of phased works to ensure continued access to, conservation of, and interpretation and promotion of the sites under consideration.

4. ASSESSMENT OF SIGNIFICANCE

General Statement of Significance

Considered together, the three sites and the visitor centre are judged (for the reasons given below) to be only locally significant. However, as is made clear, if the three sites were improved by the implementation of the works proposed in this CMP they would, as a group, be collectively significant at a regional or even national level. If the conservation works to the priory are not undertaken, the present significance would be reduced over time. The connection to the Táin Bó Cúailnge and the proximity of Rathcroghan could, if properly exploited through the medium of presentation and interpretation, elevate the significance of the whole complex to a national level, it being a physical expression of medieval Gaelic lordship within a complex ritual prehistoric landscape. A national tour based on the Táin exists, and more effectively linking Tusk into this could increase very significantly the visitor appeal and significance of the village.

Assessing Significance

Assessing the significance of a heritage asset, in this case the three monuments, lies at the very heart of the conservation planning process. The assessment approach used in this report derives from the International Council for Monuments and Sites' (ICOMOS') 'Charter for the Conservation of Cultural Significance' (known as the Burra Charter, 1981) and the exemplary work of J Semple Kerr. It also uses systems developed by Gifford during the course of preparing Environmental Impact Statements for projects in Ireland.

Essentially, assessing significance involves making value judgements about precisely how and why sites are significant. Understanding the importance of sites defines the way in which decisions will be made about everything relating to them, from their current day-to-day management to their future use(s).

Most heritage assets are usually important for more than one reason/attribute, and this is true at Tusk, as the discussion below shows. Therefore, identifying and understanding these many and potentially varied values allows for informed management, which in turn recognises the interrelationship (and sometimes conflicts) between attributes. The overall aim is to retain or reveal the significance of the asset, or at least harm it as little as possible if its future uses should change.

Understanding the level of significance attributed not only helps to demonstrate the extent of constraints, but also identifies those areas that have the potential to provide future opportunities to in securing the long-term future of the sites.

Thematic Issues

Selecting themes or 'issues' in determining why a heritage asset is significant is by no means a definitive exercise. Indeed, the criteria selected may vary from person to person and, additionally, may change over time as further understanding of the asset develops. Further to this, the issues considered pertinent to a site tend to be fairly idiosyncratic to that site. The Burra Charter (ICOMOS 1981) defines cultural heritage as 'the aesthetic, historic, scientific or social values (of a place) for past, present or future generations', and this general selection can be used as one approach to selecting criteria. However, all sites are unique and such criteria should not be assessed in a prescriptive manner.

The conservation planning-process itself also helps to define some of the criteria through its first stage which, in seeking to provide an understanding of the sites, identifies some of the basic interests of the sites:

- the importance of each *chronological* phase of change in the development of the sites and landscape;
- the importance of each different *thematic* area: use, history and archaeology, urban landscape and ecology; and
- the *values* people place on the site (users, local communities, tourists).

The significance of the sites at Tusk are considered here by using the following themes:

History and Archaeology: The importance of the sites as evidence for understanding the past and the importance of each historical period of the local landscape's development;

Structural and Architectural: Authenticity of fabric and the creative and technical accomplishments;

Social Uses: Community regard or value of the sites; The potential for the site to contribute to education and interpretation; The potential for the sites to act as a focal point for leisure and interpretation activities;

Townscape and Setting: The characteristics of the sites' setting within the village;

Religious: The spiritual aspects of the uses of the priory;

Ecology and Environment: The importance of the sites as a habitat for plant species and wildlife.

Levels of Significance

In determining the levels of significance for each theme the use of a scoring system is avoided, as it would lend a false sense of precision to what is a subjective process largely based on professional knowledge and judgement. A relative hierarchy has been used for Tusk to help clarify the issues. It is recognised that assessing significance will always be a subjective process based upon current information; hence the current assessment will undoubtedly change over time – this is one reason for regularly reviewing and updating the CMP.

The following hierarchical ladder of importance, or significance, is used to address the range of potential significance a thematic value/attribute could have. Each level can be variously qualified to allow a finer, more sensitive appreciation of sites or places to be reached.

Level of Significance	Definition
<i>International</i>	A site is deemed to be of international significance where its individual status and value are perceived by the study to merit international recognition as a site of exemplary significance. Sites such as these may be World Heritage Sites or listed on a country's Tentative List.
<i>National</i>	A site is deemed to be of national significance where, based on the criteria set out above, its status and value are

perceived by the study to merit national recognition. As such the site may be accorded a designation such as a National Monument.

<i>Regional</i>	A site is deemed to be of regional significance where, based on the criteria set out above, its status and value are perceived by the study to merit recognition at a county or local authority administrative area level.
<i>Local</i>	A site is deemed to be of local significance where, based on the criteria set out above, its status and value are perceived by the study to merit local recognition.
<i>Unknown</i>	Used where the site's characteristics are not known. One example would be the site of a building shown on early Ordnance Survey maps but which is no longer visible. Only archaeological work would reveal the details required for comparison of its characteristics with the criteria set out above to deliver an importance rating.
<i>Nil</i>	Considered to have no real value.

Significance of the Tusk Sites

The following assessments of significance have been produced in order to establish the special interest of each element and the contribution it makes to the significance of the wider site. However, as will become clear, at Tusk the present significance for many of the themes at the different sites is susceptible to change in a positive way – and, if the actions which arise from this plan were to be implemented, the resulting significance would be quite different to that ‘as found’ today. Therefore, we have identified in each case both Present Significance and Potential Significance, so that readers and users of this CMP can better appreciate the benefits of implementing the plan and its actions.

Tusk Priory and Graveyard

A brief survey as part of the preparation of this CMP has revealed over 500 religious houses (abbeys, priories and monasteries) in Ireland. Many are larger, in more complete and understandable form, have the same connections to wealthy/powerful families (almost by definition) as Tusk, and have a better recorded history.

History and Archaeology

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Regionally significant, and nationally recognised and protected by virtue of its inclusion on the RMP. Most recently published in Brady <i>et al</i> (2005). Further research might reveal more sources which would elucidate the otherwise relatively sparse known history of Tusk Priory, but the standing remains are not exceptional in an Irish context.</p> <p>The history of Tusk Priory and its graveyard is of value to archaeologists and others interested in the development, through time, of religious beliefs and changing attitudes to death, burial and remembrance. The authenticity of the monuments, the setting of the stones and the original location are therefore important.</p>	<p>The priory and graveyard would be assured at least at a regionally significant scale for the foreseeable future.</p>

<p>Gravestones are often the only documents of the lives of ordinary people; they reflect the community around each churchyard in different ways and in different times. The gravestones at Tusk add to its significance.</p> <p>However, the significance is threatened by the current and deteriorating structural condition – and unless conservation and recording works are undertaken the significance of the remains would over time diminish as the remains degrade.</p>	
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Structural and Architectural

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Regionally significant, and nationally recognised and protected by virtue of its inclusion on the RMP. Some survey has been undertaken by the Discovery Programme – see Brady <i>et al</i> (2005). An extended record of the structure could be assembled during the conservation works specified elsewhere in this CMP. Again, however, the standing remains are not exceptional in an Irish context.</p> <p>However, the significance is threatened by the current and deteriorating structural condition – and unless conservation and recording works are undertaken the significance of the remains would over time diminish as the remains degrade.</p>	<p>The priory and graveyard would be assured at least at a regionally significant scale for the foreseeable future.</p>

Religious Uses

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Locally significant as the primary place of burial for the surrounding area.</p> <p>This significance is threatened by the structural condition of the priory ruins – if un-conserved they will further deteriorate, and the ability of the community to use and value the site would be diminished or lost.</p>	<p>Locally significant – and this value would be assured by the proposed conservation works.</p>

Social Uses

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Locally significant. The community clearly holds the ruins in affection and considers them to be a physical manifestation of the community's past.</p> <p>This significance is threatened by the structural condition – if un-conserved, the priory ruins will further deteriorate, and the ability of the community to use and value the site would be diminished or lost.</p>	<p>Locally significant. Assured as a consequence of conservation works.</p>

Townscape and Setting

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Locally or regionally significant. The priory is clearly visible from the main N5 road, although set-back, and from a number of vantage points within the village extent. Currently spot-lit at night. Its importance is enhanced by its use as a waymarker on the route from Dublin to Westport.</p> <p>This significance is threatened by the structural condition – if un-conserved the priory ruins will further deteriorate, and its significance in the townscape would diminish.</p> <p>Its significance as a waymarker is also threatened by plans to bypass Tusk.</p>	<p>Locally or regionally significant if it were to become a tourist attraction to a range of people from a far-wider geographic area.</p> <p>However, its significance as a landmark would necessarily be diminished if fewer people viewed it – one of the negative aspects of plans to bypass Tusk.</p>

Ecology and Environment

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Locally significant. Whilst Tusk graveyard is relatively species-poor at present, it provides an important a refuge to wildlife, including bats.</p>	<p>Locally significant – and this value would be assured by the simple actions proposed in this report.</p>

Tusk Castle

A brief survey during the preparation of this CMP has revealed that there are (or were) some 3000 tower houses in Ireland. Even a brief web-based search has collected some 90 castle and tower houses – of which 36 are tower houses - which are substantially more complete and have more understandable form, have the same or better connections to wealthy / powerful families and have a better recorded history than the mounds at Tusk.

History and Archaeology

<i>Present Significance</i>	<i>Potential Significance</i>
<p>Unknown, but likely to be regional, and nationally recognised and protected by virtue of its inclusion on the RMP. Without further investigation the assessment of significance is hampered. Analytic earthworks and geophysical surveys would assist understanding, and sample excavation might reveal evidence to confirm an interpretation.</p>	<p>Regional? Non-intrusive survey might reveal evidence to allow artistic reconstruction with some degree of confidence. As part of a coherent tourist attraction this information, used for educational/didactic purposes, would elevate the significance.</p>

Structural and Architectural

<i>Present Significance</i>	<i>Potential Significance</i>
Unknown – likely to be local or regional should structural remains survive below the surface.	Regional? Non-intrusive survey might reveal evidence to allow artistic reconstruction with some degree of confidence. As part of a coherent tourist attraction this information, used for educational/didactic purposes, would elevate the significance.

Religious Uses

<i>Present Significance</i>	<i>Potential Significance</i>
Nil	Nil.

Social Uses

<i>Present Significance</i>	<i>Potential Significance</i>
Nil. There is at present no public access, although the presence of the site is well-known due in part to the work of the Discovery Programme.	Local or perhaps regional if, as part of a coherent tourist attraction, the site were to be used for educational/didactic purpose.

Townscape and Setting

<i>Present Significance</i>	<i>Potential Significance</i>
Nil at present, because the site lies partially hidden and affords no public access.	Potentially of local significance if it were to become publicly accessible, along with some educational/presentational investment.

Ecology and Environment

<i>Present Significance</i>	<i>Potential Significance</i>
Locally significant, providing some habitat for common species.	Locally significant.

Tulsk Earthwork

A brief survey during the preparation of this CMP has revealed that there are (or were) some 3000 tower houses in Ireland. Even a brief web-based search has collected some 90 castle and tower houses – of which 36 are tower houses - which are substantially more complete and have more understandable form, have the same or better connections to wealthy / powerful families and have a better recorded history than the mounds at Tulsk.

History and Archaeology

<i>Present Significance</i>	<i>Potential Significance</i>
Intrinsically of regional or national significance, and nationally recognised and protected by virtue of its inclusion on the RMP. Excavation has, unexpectedly, revealed the foundations of a stone-built tower house over the remains of an earlier structure and the original rath. Research reveals a close connection between a castle at Tulsk and the O'Conor Roe family – once Kings of Connaught. The connection between this reference and the earthwork is not proven, and might (as is traditionally the case) apply to Tulsk Castle.	Regional or national. Making the site accessible to the public and an investment in educational/didactic displays would consolidate this significance.

Structural and Architectural

<i>Present Significance</i>	<i>Potential Significance</i>
Local. The foundation remains, although of interest, suffer in comparison to the many better known / preserved examples.	Regional, if conserved and displayed to professional standards.

Religious Uses

<i>Present Significance</i>	<i>Potential Significance</i>
Nil	Nil

Social Uses

<i>Present Significance</i>	<i>Potential Significance</i>
Nil. There is at present no public access, although the presence of the site is well-known due, in part, to the work of the Discovery Programme.	Regional if accessible, conserved and displayed to professional standards.

Townscape and Setting

<i>Present Significance</i>	<i>Potential Significance</i>
Of some local significance because of its visibility from the N5 and N61 roads, where it combines with Tulsk Priory to form an important waymarker on the routes east-west and north-south through the village. Its presence and archaeological significance is also well known locally because of the efforts of the Discovery Programme. Its significance as a waymarker is, however, threatened by plans to bypass Tulsk.	Local, or regional if accessible, conserved and displayed to professional standards. However, its significance as a landmark would be diminished if fewer people viewed it – one of the negative aspects of plans to bypass Tulsk.

Ecology and Environment

<i>Present Significance</i>	<i>Potential Significance</i>
Locally significant, providing some habitat for common species.	Locally significant.

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Cruachan Aí

Although the Cruachan Aí centre is not formally a part of the remit of this CMP, it has come to fill a central role in much of the forward-planning elements detailed below. It is, therefore, valuable to consider the significance of the centre here, and consider how its present significance might be affected by the actions proposed below.

History and Archaeology

<i>Present Significance</i>	<i>Potential Significance</i>
Nil. The centre has no intrinsic historic or archaeological significance.	Nil. The Centre has no intrinsic historic or archaeological significance. However, if internal refurbishment was implemented, the site would effectively become at least regionally significant as a source of heritage education and interpretation.

Structural and Architectural

<i>Present Significance</i>	<i>Potential Significance</i>
Nil. The centre has little intrinsic structural or architectural significance.	Nil. The centre has little intrinsic structural or architectural significance.

Social Uses

<i>Present Significance</i>	<i>Potential Significance</i>
Local. The centre is widely regarded as a significant local amenity.	<p>If improved, the centre would become an even more significant local amenity.</p> <p>If the rebranding and internal refurbishment were implemented the site would effectively become at least regionally significant as a heritage centre.</p>

Townscape and Setting

<i>Present Significance</i>	<i>Potential Significance</i>
Local. The centre is a dominant feature in the townscape, and is centrally-placed within the historic sites discussed in this CMP.	Local.

Religious Uses

<i>Present Significance</i>	<i>Potential Significance</i>
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Nil.	Nil.
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Ecology and Environment

<i>Present Significance</i>	<i>Potential Significance</i>
Local.	Local.

5. GENERAL CONSERVATION PRINCIPLES

The basic philosophical principle underpinning this CMP is that the sites at Tusk should benefit from a long-term conservation programme, and it is appropriate to consider a Quinquennial Review system to ensure that the momentum of such a programme is sustained. This system is a formalised regular review of the many issues which may affect an historic property, including structural issues, maintenance, effects of various on-going activities and uses, with the express intention of identifying necessary capital or repair works in good time, thus minimising costs and ensuring the long-term survival of the site or building. A Quinquennial Review will build on the Action Plan set out in this CMP, and is included as Appendix 4.

The management programme should allow the sites to be managed in such a way as to maximise their spiritual, socio-cultural and leisure possibilities, and to provide enjoyment for individuals through an increased appreciation and understanding of each in isolation, and as a group. It should also be very firmly based upon ensuring that the sites' character and fabric are preserved.

General conservation 'best-practice' principles include:

- The preservation of the character of buildings and sites in general;
- The use of local materials (and re-use of fallen materials) wherever possible;
- The use of lime mortars and local vernacular materials for any new building works;
- That the repair and/or consolidation works should not jeopardize the future integrity of the buildings.

All conservation and management works at the three sites should be based upon a detailed record derived from survey and, if necessary, intrusive investigations. This should provide a record of 'as found', and form the basis for informed conservation (*c.f.* Maxwell, Nanda and Urquhart 2001, *Conservation of Historic Graveyards*, and Clarke 2001 *Informed Conservation*). In practice, the majority of the fabric at each site requires conservation-based repair and consolidation rather than extensive rebuilding.

Buried archaeological deposits are certain to survive at each site and should not be needlessly disturbed – and where an impact appears unavoidable a plan for mitigation by record and excavation should be developed in consultation with the DoEHLG. An Archaeological Impact Assessment should be formulated and consistently updated within the design process to ensure that recording and investigations are included within both design and development works.

The character of the sites must not be adversely affected by any works – and with thoughtful planning, works to improve or restore their character may be welcomed by the National Monuments Section of the DoEHLG.

Conservation works should in the first instance safeguard the structural integrity of historic fabric on each site and restore weatherproofing. Thereafter, conservation should be directed in a priority order

based upon a combination of significance and vulnerability.

6. OPPORTUNITIES, VULNERABILITIES AND RECOMMENDED ACTIONS

In the following section of the report, a series of numbered actions which we recommend the Tusk Steering Group implement are identified in the left-hand column. We also identify other works which we recommend for consideration, information and eventual implementation in some form. In each case the relevant actions are described in the text in the right-hand column, and are then grouped in the Action Plan, to be found at the rear of this report.

Tusk Priory and Graveyard

Any works which take place within the site, as in all the sites considered here, are governed by the requirements of the National Monuments Act 1930-2004. This is a necessary constraint, and one which delimits the type and nature of any work planned.

Any enhancement of the visitor experience will ultimately require funding, and the sourcing of such funds is also a key constraint to any works planned.

The historic fabric which comprises Tusk Priory will require an ongoing maintenance regime, as with any historic structure. In this sense, the site can be seen as potentially vulnerable should the funds and management to conduct this future work become unavailable.

The recent publication *County Roscommon's Graveyards* (Ganly and McKeon 2007) highlights the opportunities that historic graveyards present. These are reproduced, as appropriate, throughout.

Ivy

The extensive and very dense ivy growth which covers the priory is a major problem for the ruin. On the one hand, ivy-covered ruins contribute to the sense of gentle decay which characterises historic graveyards and can, as in this case, act as temporary support to walls which would otherwise be in imminent danger of collapse. Additionally, the broad leaves of the ivy act to limit water and frost ingress into the masonry joints of a building. Ivy-covered ruins were typical of the Romantic movement, and represent to this day melancholy and decay. On the other hand, extensive damage has been caused by invasive roots and stems of ivy penetrating into the stone beds of the priory masonry, thus removing mortar and dislodging stones.

Following consultation, it appears the consensus in Tusk is that the ruin is better seen without the ivy, and this of course concords with the need to conserve its walls. The ivy was therefore heavily trimmed during September 2008. Although this exposed much of the ruin's remains, the stems were so dense in some places that it remained impossible to determine the condition of the stonework.



Figure 12: Ivy growth across the priory is systemic. This is the mass of stems left after initial trimming in September 2008

Action 1

The ivy should largely be removed and then managed in a careful and staged way. The initial trimming of the foliage has allowed the building to be seen much more clearly and this level of trim should be maintained, subject to the legal restrictions in place due to presence of bats (see Appendix 3).

Recommendation 1

As with any maintenance or conservation works on the site the correct access equipment should always be used and health and safety procedures followed. It is not advisable to prop ladders against the masonry, since this may be unsafe and may destabilise precarious fabric.

Action 2

The base of the ivy stems should have a 300mm section cut out close to the ground everywhere that they occur. It would take approximately two years for the ivy to die, during which time the stem's growth is arrested. However, it could take ten years for the stems to decay completely. It is therefore recommended that where an area of the priory is to be repaired, the process is accelerated by using herbicides which are both safe to use and will not damage the stones or flora and fauna. The ivy stems can then be removed from the walls and the joints raked out and deeply repointed with an appropriate lime mortar (specification provided in Appendix 5).

- Recommendation 2** Removal of the ivy's roots, stems and branches from the priory walls should only begin when funds and a timetable are in place to conserve the fabric that will be exposed.

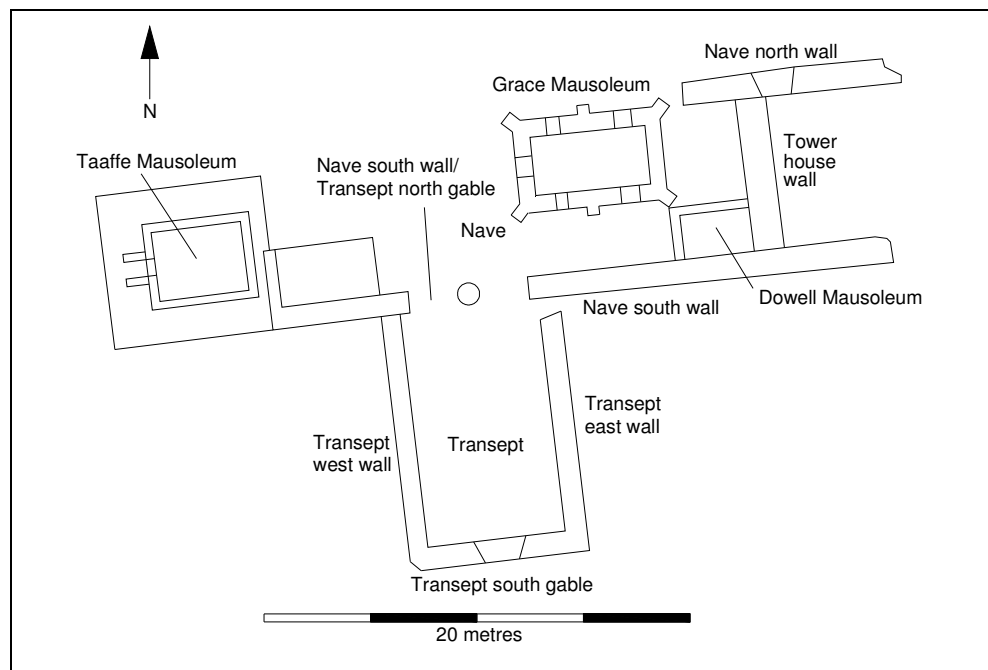


Figure 13: Plan showing location of masonry sections referred to in this report

Survey and Recording

- Action 3** It is understood that the Discovery Programme may embark shortly on a rectified photographic survey of all elevations of the priory buildings and we recommend that this work is supported by all parties. This work is necessary in order to provide a permanent, archivable set of drawings which record the church fabric **prior** to conservation works, and will act as a guide to those works.
- Action 4** All conservation work will be subject to the agreement of the DoEHLG and will almost certainly need to be monitored by an archaeologist. An application for permission to conduct the works detailed in this CMP should be made to the DoEHLG, and the services of an archaeologist engaged.

The Priory - General Observations

The north gable wall of the transept is potentially unstable. The wall steps in on the north elevation above eaves level so the upper triangle of stonework is perhaps only 400-500mm thick and perhaps 4.2m tall (above eaves) with no structural restraint. By inspection, it appears to lean slightly to the south and the pointing is deeply weathered indicating a potential instability. However, it should be noted that it appears from historic drawings to have been in a similar condition 200 years ago.

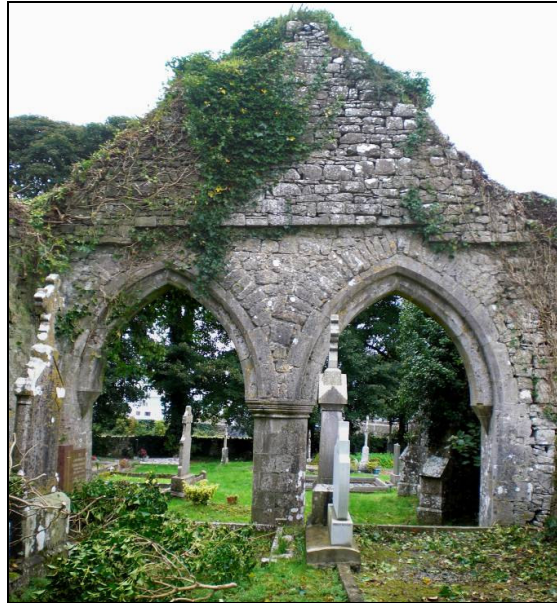


Figure 14: Transept north gable/nave south wall



Figure 15: The cylindrical column has a number of vertical cracks in the stonework

The west wall of the transept has been damaged by the ivy, areas have cementitious mortar, and other areas have no effective pointing. There are a number of recesses in the wall, possibly due to ivy damage or where headstones were inserted.

In the south wall of the nave a flat arch over a window opening survives only precariously, with just half a mortar joint preventing its collapse.

Many fallen stones rest at the foot of the ruin. These are potentially vulnerable to theft and in the tower house wall there are a number of potentially loose stones evident.

The north wall of the nave is leaning northwards away from the tower house cross wall. An opening gap is visible between the tower house wall and the nave wall. On the west elevation of the tower wall a stone connected the two walls has failed and a number of vertical gaps between stones are also evidence of movement. The stones in this section of the wall appear loose. On the east elevation of the tower house wall, stones have slipped and appear loose and there is a gap between this wall and the nave wall. The nave wall here is some 8m tall and is poorly bonded into the cross wall.

All the horizontal surfaces at the tops of the walls are particularly exposed to damage from invasive ivy and other vegetation and water ingress.

At the top southern corner of the tower house wall, there is a tree growing from the wall with a trunk diameter some 150-200mm.

The eastern end of the south nave wall has a noticeable overhang with stones corbelling. This is satisfactory providing the stones are firmly bedded but it was not possible to see whether this was the case due to ivy growth.

The ground level in the transept lies approximately 1m higher than that to the west of the transept. The ground level to the south of the nave is also higher than in the nave. However, these differences in levels do not appear to be causing a problem at present.

At the west end of the south nave wall there is an area of loose stones, which appear to have been rebuilt in the past.

The south wall of the nave has a number of recesses and loose stones where the bonding has degraded, particularly at low level.

At the south-west corner of the transept there is a large ivy trunk of some 200mm diameter growing in the wall, and a number of stones have been lost from this corner, probably as a result of pernicious ivy growth.

The south gable wall of the transept was still covered with dense ivy stems at the time of the site inspection, and was therefore difficult to inspect. However, the wall is some 8m tall, with no structural restraint above eaves level (approx 4m) and so is therefore vulnerable to instability.



Figure 16: West elevation of the tower wall

The Priory – Actions and Recommendations

A detailed list of all the repairs noted as being required is included in the Action Plan at the back of this report, and Appendix 1. These have been prioritised as Priority 1, Priority 2 and Priority 3. It is recommended that the repairs are undertaken over a three year programme, starting in 2009. The following text is a brief summary of Appendix 1.

Action 5

It is recommended that the east end of the nave wall is pinned back to the tower house wall using stainless steel rods drilled horizontally into the stone work and grouted into position. The grout is contained in a fabric sock to prevent it seeping through the wall. In addition, the pointing should be repaired in this area.

Action 6

In the north nave wall, the low-level window arch needs some repointing to ensure its stability. The medieval wicker centring on the underside of the arch should not be damaged during this exercise.

Action 7

The general structural integrity of the gable walls should be improved by raking out the joints and repointing. A detailed dimensional survey should be undertaken to record the verticality of the wall, and measurements should be repeated annually for, perhaps, ten years.

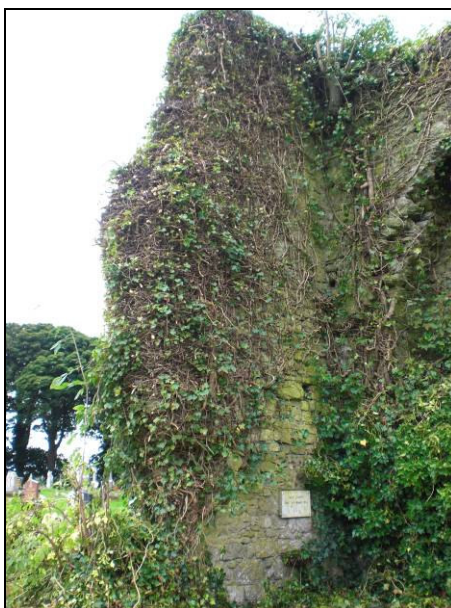


Figure 17: The south wall of the tower house

Action 8

One suggestion which arose during the consultation was to use the conservation works at the priory as an opportunity to train Roscommon County Council employees in the methods and use of lime mortar and stone masonry. We recommend that this is considered by the Conservation Officer for Roscommon County Council.

Dowell Mausoleum

Recommendation 3

The Dowell Mausoleum is located in the nave, abutting the west wall of the tower house and the south wall of the church. During our site visit it was heavily overgrown with ivy and it was not possible to inspect it in detail. The ivy needs to be removed, as previously described, and there is likely to be a need for some localised repointing work and stone repair.

Taaffe Mausoleum

Recommendation 4

The Taaffe Mausoleum is situated immediately beyond the west end of the nave of the priory. Vegetation on the roof should be removed, the low-level wall to the south of the mausoleum should be repaired, and the ironwork to its surrounding railings needs painting (in the following manner) to prevent further deterioration.

The railings should be conserved, as follows;

- Wire brush off flaking paint and surface rust and treat with proprietary rust-killer;
- Paint with a micaceous iron-oxide build coat;

- Finish with two coats of black gloss.

Whilst the stonework of the mausoleum is weathered and, in places, decorative features have been lost, repair of these features is not considered a priority at this time. Regular inspection should continue.



Figure 18: The Taaffe Mausoleum

Grace Mausoleum

The buttresses of this mausoleum, which was designed in the Victorian Gothic style, have moved away from the walls, which are of stonework with dressed stone cladding. The cladding is not well-bonded to the inner leaf, and the water ingress and subsequent vegetation growth is prising the cladding and the buttresses away from the inner leaf. In places, the cladding stones have come away completely from the stone core of the walls. This is occurring on the flank walls and the corner buttresses.



Figure 19: The Grace Mausoleum lies to the centre-left in this image, and the Taaffe Mausoleum to the right.

The roof flags are in poor condition and this is allowing water to permeate into the fabric of the building; there is a risk of further deterioration, loss of stones and water ingress.

Action 9

It is recommended that the roof is repaired and the vegetation removed to prevent further damage. The buttresses are not performing any useful structural function and should not be connected back to the building. However, the joint between the buttresses and the walls should be pointed to prevent further damage. The stone cladding to the flank walls should be partially rebuilt, with one stone removed and replaced at a time and tied to the inner leaf using stainless steel remedial wall ties.



Figure 20: The west elevation of the Grace Mausoleum

- Recommendation 5** An area of historic graffiti survives inside the left door jamb of the entrance, and care should be taken not to damage or remove this during renovation works.



Figure 21: Inscribed graffiti inside the entrance to the Grace Mausoleum

Graveyard

Enclosures with wrought ironwork

A few of the enclosures at Tusk have decorative ironwork. Some of this is in good order - some is not. Cast or wrought iron railings are an important part of an historic graveyard's character but they can often be in poor condition, and this is the case with the enclosure located on the southern boundary of the graveyard.

- Action 10** The interior of this enclosure needs to be cleared of the undergrowth and trees that have been allowed to develop. This work, as elsewhere, must be conducted sensitively, and any loose stonework or ironwork retained in a safe place (preferably on-site) for swift re-use.

- Action 11** The four sides of this enclosure have separated from each other, and need re-fixing. The ironwork also needs painting to the following specification to prevent further deterioration.

- Wire brush off flaking paint and surface rust and treat with proprietary rust-killer;
- Paint with a micaceous iron-oxide build coat;
- Finish with two coats of black gloss.

It is unlikely that the railings were treated to decorative paintwork when they were installed, and the temptation to do so now should be resisted.

Recommendation 6 Over time, the base of the uprights, which are in a corroded condition, may rot out, and at this time the railings will need to be removed and fully renovated.



Figure 22: Enclosure in south-western part of the graveyard

Paths

Recommendation 7 Historically, rural graveyards did not have formal paths. However, modern cemeteries require vehicular access, as is the case at Tusk. The upper part of the road into the cemetery is presently finished with gravels, with Tarmac and concrete kerbing to the lower reaches. The use of gravel without concrete edging is more suitable to an historic graveyard, and this treatment should be retained and, if monies allow, extended to the whole length of the road.



Figure 23: The cruciform path through the site

Outside of the road area no formal paths exist. If pedestrian traffic increases sufficiently natural paths will in any case develop, and on routes that have found to be most suitable.

Gravestones

Historic graveyards provide an insight into the skills, crafts and lives of those who built them and are buried within them. Ancient building techniques, such as vaulted or carved stonework, dry stonewalls and ironwork such as gates and railings represent the skills available in each locality at that time. Headstone inscriptions can provide an insight to the lives lead at different times in the past, as they are frequently found to include information on a person's livelihood or cause of death. Images carved on headstones are also richly symbolic.

Recommendation 8 The cemetery is in use by the local community, and many of the graves and grave plots are recent. Those to the east of the access road are exclusively so, and need little further comment here. However, care should be taken during the construction of new plots to ensure that any historic artefacts unearthed, such as worked stones, are removed to a safe place within the site and are not re-used in modern structures.



Figure 24: Modern plot under construction

The oldest datable grave-marker on the site dates from 1679, and the majority of the plots and markers are of more recent date. Most of the historic gravestones appear to be in good repair and are easily accessible.

Recommendation 9 Despite the temptation, there is little need to right the historic fallen grave-markers. The effects of time and weathering are a key characteristic of graveyards, and suit their character of gentle decay. Gravestones should not be raised or straightened, unless by doing so their integrity is stabilised, and they should not be cleaned. Any conservation measures which are required to make markers safe must be designed to slow down the rates of deterioration, and not to effect a restoration. The most effective policy is to take steps to ensure that no further damage is caused by visitors, falling trees or masonry.



Figure 25: Some localised damage to the grave-markers has occurred over the years

Recommendation 10 Moss and lichen add to the character of graveyards, and here do not generally appear to be obscuring inscriptions. Some lichens damage stonework, and it

might be beneficial to consult a lichenologist to ascertain whether the lichens are benign or not. Mosses are generally sympathetic to gravestones and should only be removed if there is clear evidence that the growths are having a detrimental effect on the integrity of the stone.



Figure 26: Moss and lichen add to the character of graveyards

Recommendation 11 Tulsk graveyard, in common with many historic graveyards, contains large numbers of isolated and grouped stones. Most of these will have their origins in the fabric of the priory, will have been used as grave-markers, and they should not be removed unless they are clearly of very recent deposition. Any stones that are loose should be removed for safe keeping, although should not be taken off the site, as this may result in them being misplaced.

Boundary walls

The historic part of the graveyard (that is, the parts to the west of the pathway) is bounded by a limestone ashlar and rubble wall which is for the most part bonded with mortar. Parts of this wall where it adjoins the N5 are finished with coping stones, whilst other stretches are capped by stones in a castellated pattern.

Action 12

For the most part the walling is in good condition. However, ivy envelopes some stretches, and lines of mature trees are set against the wall. Both will in time contribute to movement and disrepair of the fabric, and a maintenance regime should be put in place to prevent this occurring. Additionally, some waste materials are being stored against the wall, and these should be moved away from the wall.

The recent extension to the graveyard is bounded by a concrete block wall where it adjoins the neighbouring property, again in good condition. Elsewhere, the graveyard extension is bounded by hedges and earth banking.

Graveyard maintenance

The graveyard is currently maintained by the Cemetery Care Group, who receive a small grant from Roscommon County Council. The grass is presently cut by the Rural Social Scheme.

Recommendation 12 The site does not appear to be subject to vandalism or theft. Monitoring of the site should continue, and if these problems appear a number of options can be considered. These include - and we recommend - changes to the maintenance regime, raising awareness with the local Garda Síochána and enhanced community support.

Recommendation 13 The use of herbicides, pesticides and other chemicals should continue to be limited (see also below).

Recommendation 14 Vigilance should be maintained, and where necessary appropriate action taken, to ensure that invasive plants do not become established.

Recommendation 15 We recommend that the care being taken whilst strimming near gravestones should be continued. The site should remain grassed, and the level to which the grass is being cut should follow the '1-2-3' system outlined below. Lawnmowers should not be used because of the potential for damage to gravestones.

Action 13 We recommend that a compost area be established within the site in order to assist in the disposal of old flowers and other graveyard refuse. This may be a simple composter or a purpose-built area, and may incorporate an area for other waste.

Interpretation, setting and presentation

Action 14 At present there is no information on offer to the visitor. One or more interpretation panels (detailing the priory's different historical phases) should be prepared, and sited in sympathetic locations such as the entrances. Panels should not be attached to the historic masonry.

Action 15 An interpretation sign should also be erected to highlight the natural heritage aspects of the site, onto which some of the easily recognised species should be illustrated. It would be important to inform visitors about the purpose and functioning of initiatives, such as the wildflower areas, which can appear to be simply neglect and look 'messy' (often tempting the uninformed to tidy things up).

Action 16 Self-guiding information leaflets on the historical development of the site and the natural heritage of Tusk Priory, should be produced and be made available at Cruachan Aí.

Action 17 Visitors should be encouraged to take home their discarded flower and display wrappers and other rubbish by including text to that effect in the self-guiding information leaflets and interpretation panels. It is not Roscommon County Council policy to provide litter bins in graveyards.

Action 18

The priory is currently lit by a high-level floodlight mounted on a pole which sits immediately inside the roadside wall. Although this was no doubt erected with the best intentions, the apparatus detracts from the setting of the monument, and should be re-sited at a low level. The lux level must also be considered carefully, since it might conflict with the habitat for bats and other species (see below).



Figure 27: How the site is floodlit should be reconsidered

Several consultees felt that the N5 road and the volume of traffic that it carries detracted from the setting of the priory, and that the condition of the N5 road surface is also short of satisfactory. However desirable, any recommendations on ameliorative measures lie beyond the scope of this CMP, although it is noted that plans are afoot to eventually bypass Tusk.

Action 19

The priory as a tourist destination needs to be well signposted from the road. At present there is no signage on offer, and a finger post or similar should be erected, preferably on the opposite side of the road so that it does not detract from the monument.

Action 20

Events that explore or celebrate the heritage of an area are always extremely useful in raising awareness and gaining assistance locally. It is recommended that at least one event per year be held, and that this incorporate education on some of the wild species to be found in the graveyard and the measures being taken to conserve these.

Description of flora and fauna to be found at Tusk Priory

(See also Appendix 2)

Historic graveyards often contain a rich natural heritage, which may have been relatively undisturbed for years, providing a valuable habitat for insects, birds and mammals. They can contain a rich flora of native wild grasses,

flowers, shrubs and trees. Historic graveyards can also provide an oasis for wildlife in a sea of managed farmland or buildings. Historic graveyards are in contrast to their modern counterparts that have a formal layout, paved pathways and improved grassland containing less habitat value for plants and animals.

In addition to the ivy discussed above, a number of other woody species were recorded on or within the walls of the priory. These included young ash, sycamore saplings, pyracantha and privet. On ledges and sills, where organic material has accumulated, there are mosses and grasses, the latter being dominated by bent species. Inside the priory, the most extensive growth was found on the north-facing pitch of the roof of the Dowell Mausoleum. Much material has built up on the slates of this and bent grasses, creeping buttercup and nettles are abundant. There are also a few ragwort plants and some sycamore saplings.

The bat survey presented in Appendix 3 notes that the priory offers much potential habitat in terms of crevices, niches, cavities and gaps in the walls, door and window-frames. The more intact mausolea offer high potential as habitat as they are more sheltered.

It is not surprising, therefore, that a hibernating brown long-eared bat was found within the wall of the Grace Mausoleum during the field inspection. Walls with crevices toward the south or exposed to sunlight also offer potential for various bat species. The mature ivy growth enhances the likelihood of bat roosts as it provides additional shelter, and this is one of several inherent contradictions that arise when considering how to conserve an historic structure.

The ivy also represents possible nesting sites for a number of bird species. None, however, were noted during survey, although these may be very well concealed.

The ground flora inside the priory was typical of damp and shady places and included mosses, herb-robert, creeping butter-cup, common vetch and some ragwort. The grass has been strimmed short throughout the site and the cuttings left *in situ*. In the brighter areas, such as the chancel, there are daisies, dandelion, common thistles (*Cirsium* spp.) and clovers. Ragwort, wall pennywort and crested dog's tail were among the plants growing on the Taaffe Mausoleum. The combination of grass cutting and trampling by visitors has left little by way of ground flora on the south and west sides of the outside of the priory. Part of the ground here is gravelled, preventing regrowth.

The south-eastern corner of the graveyard is dominated by a few species of grasses and clover which are kept short by regular mowing. Although difficult to identify given the time of visit, it is thought that common bent, creeping bent and annual meadow grass were the most common species. Dandelion and ribwort plantain were also abundant in this area. A mature treeline has been removed from the border between this area and the older graves. These were likely to have been yew. Sulphur tuft mushrooms were growing on some of these and several shaggy ink-cap fungi were also found here.

Ash trees have regenerated around the McDermott grave to the south of the site, and the shady aspect allows this area to resemble young woodland. There are two young elder, and some sycamore are regenerating. The ground is damp and mossy with some wild carrot. There is a small area of recently disturbed ground in the south-western corner of the graveyard and another shaded and damp area is found in the north-western corner of the site. Here there is abundant germander speedwell, cats ear and nipplewort. One grave (Connolly) displays a large amount of nasturtium growth.

The softer ground on the graves allows for more colonisation of plants. Species noted included hairy bitter-cress, herb robert, thistles, sycamore saplings and rosebay willow herb. However, there are few wild plants on or among the densely spaced modern graves in the north-eastern corner of the site.

Along most of the wall adjacent to the N5 a row of *Hypericum* shrubs has been planted. The wall that forms the eastern boundary is very species-poor, with four semi-mature sycamores on the graveyard side and the remaining vegetation being merely overhanging sycamores from adjacent gardens. There is an earth bank on the south-east boundary of the site with a young ash (c. 2m in height) and a mature hawthorn of 5m height and 2m width. Vegetation on the earth bank is mostly comprised of bent grasses, fool's parsley, bush vetch, nettle, clover and a small amount of thistles and willow herb. There are also cleavers and docks. There is some hawthorn regeneration evident. Some grass cuttings have been dumped at the corner of this bank with the stone wall.

The south-western and western boundaries of the site comprise mortared stone walls overhung with mature trees. These are almost all sycamore with occasional elder appearing in the understorey. The sycamore trees grow to approximately 18m in height and have a crown spread of c. 5m. A single fir tree (possibly silver fir) was recorded, and this is in poor condition. Tar-spot fungus is common to almost all of the sycamore, most notable on those to the south of the site. Ivy grows on all of these to a height of around 8m. However, the sycamores are almost uniformly in good condition and are planted densely along the western boundary, creating shady summer conditions. Here, ivy is extensive and grows near continuously along the top of the stone wall. There is a break in the treeline beside the fir tree where there was likely to have been a windfall. Ivy is less dense here and there are some elder. The ground flora is more diverse here and includes *Montbretia*, docks and bramble. There is a rookery in two of the mature sycamore trees on the north western boundary. Grass and broken stones have been dumped in this area.

With the exception of the bat, no rare, threatened or endangered species were recorded in any of the sites. It should be noted that while a full bird survey was not carried out, a range of bird species, likely to be typical of the area, was recorded. This is given in Appendix 4. All of these species are protected under the Wildlife Acts (1976 & 2000), with the exception of wood pigeon which is a quarry species.

A single fox scat was found on a grave to the west of the priory graveyard. Terrestrial mammals could readily access this site via the earth bank to the south-east. The bat survey (Appendix 3) recorded the presence of a brown long-eared bat and indicated that suitable habitat exists for other bat species

on this site. Although the Irish Wildlife Trust Lizard Survey of Ireland has recorded common lizards in this county no reptiles or amphibians were observed.

Bats

A full survey on bat activity and habitat at the site is given in Appendix 3 and includes recommendations for future works and site management. These are summarised below:

As well as the priory being a known bat roost, the site offers opportunities for at least six bat species.

Action 21 Any maintenance works must be preceded by a specialised survey for bats. A derogation will be required before any works take place that might impact upon the bat found.

Recommendation 16 Any woodwork employed during conservation works must not be treated with harmful chemicals.

Lighting of the site could have a serious detrimental effect upon several bat species, and this is another of the inherent conflicts between heritage presentation and preservation.

Action 22 The grounds of the site should be managed in order to provide better feeding opportunities for bats. This should include planting shrubs attractive to insects.

Birds

The site offers nesting and cover areas for several species. Most of the bird habitat is contained in the sycamore trees and the smaller vegetation of the boundary. There is an opportunity to enhance the site as outlined below.

A more 'wildlife-friendly' grass maintenance regime could be put in place. This will encourage soil and other invertebrates and will benefit birds. This is also described below.

Plants and Plant Management Regime

The greatest part of the site not obviously covered by graves is species-poor grassland. This could be made more valuable for wildlife by the maintenance of a wildflower and wildlife-beneficial regime. There are many options possible for this, but it is proposed that one of the simpler regimes is implemented.

Action 23 This regime does not require any site preparation or seed mixtures to be used. Rather it is a system based on grass and herb mowing frequency (the '1-2-3 system'). In this, the least used parts of the site are mown only once per year, the more frequently used parts twice and the most frequently used areas three times. All of the above allow other wild plants to gain some advantage over the more quickly growing grass and will result in a greater diversity of plant and insect species. The most important part of installing this system is ensuring that all involved in graveyard maintenance are aware of how and why the system operates. Very old graves or those that are derelict or not regularly tended should fall into the '1' category of this system.

Action 24 The boundary of the site would benefit from the planting of native tree species, as this would enhance the site for a number of groups of species. In particular, the walls of the eastern and northern boundaries of the graveyard should be

planted in this way. Ash is a locally common tree and would suit the landscape of this site. Hazel is also abundant in the area and should be considered as an understorey shrub, as should blackthorn.

- Action 25** The custom of planting yews in churchyards seems to have come with Christianity to Ireland, in imitation of Mediterranean cemeteries with cypress and laurel. Yew trees appear to have been removed from the site, and it is proposed that these be replanted.
- Recommendation 17** Shrubs such as honeysuckle and dog-rose are examples of lower understorey plants which are also wildlife-beneficial. The existing ivy on the walls and ground layer of the graveyard boundary should be maintained, although it will need to be maintained for it not to eventually destabilise the walling (see above).
- Recommendation 18** A long-term maintenance regime might include the removal of some of the sycamore trees on the western site boundary and their replacement with native species. Although this will be of long-term benefit to a number of species, there would be a short-term negative impact upon bird and other species. There would (arguably) also be a negative impact upon the landscape and views in the short-medium term.
- Action 26** Some non-native, non-invasive species which will be of benefit to invertebrates and birds should be planted. These include butterfly-bush (*Buddleia*), *Cotoneaster* and *Pyracanthus*.
- Action 27** Depending on space available, those managing the site may wish to dedicate an area or areas of the site to wildlife. Examples of this would be a low-mow wildflower area or a 'butterfly and bug' area to the south-east of the site. The area devoted to wildflowers and other wild plants may be of any size and contain a very wide range of species. Those for dry calcareous areas could include lady's bedstraw, chamomile, cowslip, black medick and knapweed.
- Recommendation 19** Herbicides should only be used on hard surfaces such as the Tarmac paths. No historic fabric or stone walls should be sprayed under any circumstances. Strimming should not take place close to the boundaries of the site (e.g. the stone walls).
- Recommendation 20** The habitat for birds and bats may be enhanced by the addition of nesting and roosting and hibernation boxes respectively. These would add long-term value to the site for many species. Whilst there is much information available on the construction and installation of all of devices, it is highly recommended that professional advice be sought before these are erected, to ensure that the boxes are correctly sited, recorded and maintained.
- Recommendation 21** Mature trees enhance the appearance of graveyards and provide habitat for wildlife (as detailed above). Unfortunately, tree and shrub roots are potentially damaging to masonry, and this is particularly the case where trees grow close to the priory. Additionally, falling branches and trees are a hazard to the public and monuments alike. A regime of regular pruning should therefore be maintained.

Exotic Plant Species

A number of non-native plant species have been introduced to the graveyard. These include a variegated privet, nasturtium and Hypericum plants. The extent of growth and spread of these does not yet, however, appear to represent a problem in terms of colonisation or exclusion of native species.

Tulsk Castle



Figure 28: Tulsk Castle in the background, viewed from Tulsk Earthwork

There are two main issues requiring consideration – the desirability or otherwise of public access, and future plans for the monument. At present, the earthwork is closed to the public, and may only be glimpsed through the windows of Cruachan Aí. The consensus view from our consultations is that it is desirable that the monument be accessible to the public.

Access

Recommendation 22 It is desirable that Tulsk Castle be accessible to the public because, amongst other reasons, the visitor can, by standing on top of the monument, gain a good sense of the scale of Tulsk Earthwork, and its relationship to the other monuments. Should public access to Tulsk Earthwork be achieved, a bridge across the Ogulla River to connect the two monuments would enhance the visitor experience. This action would, of course, need the consent of both landowners, and public safety and security to nearby premises would need to remain the paramount concern.

The owner was consulted about his plans for Tulsk Castle. In principle, he has no objection to the public visiting it and to enable this he would like to insert an opening in the wall bordering the car-park.

Action 28 The wall is not a registered monument but it is, from appearance, either a post-medieval demesne or deerpark wall. We recommend that Roscommon

County Council's Conservation Officer contacts the owner to offer advice on how to proceed with creating an opening in the wall, as a first step towards possible public access.

Archaeological investigations

Recommendation 23 The owner, in principle, does not have any objection to archaeological investigations of Tusk Castle. Initial discussions between Gifford and the Discovery Programme indicate that they could not carry out any major work on this site, but could possibly contribute a geophysical and topographical survey. This work would be a valuable first step in updating current thoughts on the origins and nature of the earthwork, and could feed directly into an update of Cruachan Aí's exhibition.

Action 29 Non-intrusive surveys would also be a valuable first step in any plan to excavate the monument, and exploratory excavation work is recommended. The Discovery Programme has indicated that it would be keen to co-operate with any body that undertook such work, but it is unlikely that they could fund excavation work themselves.

Flora and fauna

This site has not been surveyed. However, as far as could be ascertained, the site is grassland which has been mown or (more likely) grazed in the last year. Three or four mature beech trees are visible on the site, and these provide roosting habitat.

Tusk Earthwork



Figure 29: Recent archaeological excavation by the Discovery Programme have revealed the substantial foundations to a tower house

Archaeological excavations

Ongoing, seasonal, archaeological excavation of Tusk Earthwork is being undertaken by the Discovery Programme. This has revealed a sensational

monument which is the product of many different historical periods, and represents a number of different buildings. The monument is generally in good repair at present, and would make an exciting addition to the list of monuments that the public can view in the area.

Recent Planning Background

Tulsk Earthwork lies in a parcel of land, totalling some 5.6ha, which is in the ownership of Daniel and Andrew McGonigle. The owners have previously submitted to Roscommon County Council a planning application (Planning Authority Reg Ref 06/1259) for the demolition and removal of a cattle pen and crush, construction of 39 houses, three shops, one office, one store, car parking, connection to services and all other ancillary site work.

Roscommon County Council granted planning permission in August 2007, subject to thirty-four conditions. Condition 2 required a reduction in the number of houses to be built, so that only nine houses and the commercial units would be authorised, and that the access be located to a point on the eastern side boundary where an access already exists. Condition 4 required an archaeological impact assessment, including documentary research and the excavation of trial trenches, to be carried out before development commenced.

An Taisce and the DoEHLG appealed against the decision, and the case was referred to An Bord Pleanála. In February 2008 permission was overturned by An Bord Pleanála (Case Reference PL20.225391). The decision to refuse permission was based upon two factors:

1 'The proposed development would interfere with the ringfort on the site which appears on the Sites and Monuments Record established under section 12 of the National Monuments Act 1994 under no. RO022.11403. As such it would seriously injure the cultural heritage of the area and would prejudice the preservation *in situ* of archaeological remains in accordance with government policy set down in section 3.4 of the *Framework and Principles for the Protection of Archaeological Heritage* issued by the Department of Arts, Heritage, Gaeltacht and the Islands in 1999. The proposed development would therefore be contrary to the proper planning and sustainable development of the area'.

2 'By virtue of the location, design and layout of the proposed commercial buildings, the development would detract from the established character of the village of Tulsk in a manner that would seriously injure its amenities. Therefore the proposed development would be contrary to the proper planning and sustainable development of the area.'

During the process of planning determination, the DoEHLG had asked for further archaeological information to be submitted, which would comprise non-intrusive surveys to determine the nature and extent of sub-surface archaeology, together with a visual impact assessment. They were not happy with the results that were submitted, and their appeal against planning permission provided the following reasons for recommending refusal:

'Permission should not be granted for the development as it would have an unacceptable impact on archaeological heritage of national significance. It

would have a direct impact on archaeological remains and would be a visual intrusion on an important archaeological monument currently being investigated under the Discovery Programme. The site is part of a complex along with the priory across the road and castle across the river. Development would diminish the integrity of the complex. The condition on archaeology attached to the planning authority's decision would be inadequate to address this concern.'

The Inspector considered the submissions from the DoEHLG and reports submitted by the applicant, and concluded that, whilst preservation by record was satisfactory for archaeological remains which were likely to be present on the northern part of the site, the preservation *in situ* of the ringfort and associated area to the south of the application area was required.

Further, the Inspector considered that the character of the village was worthy of conservation and should be respected in new development. He reported that the proposed development failed to do this.

Lastly, the Inspector considered the arrangement of the commercial buildings on the site to be haphazard, so that they would appear as isolated structures in a car park without creating either sense of enclosure or any streetscape. As such, the Inspector considered that they would detract from the setting of the ringfort and, to a lesser extent, the ruins of the priory across the road.

In essence, the submitted design and the granted permission moved housing *etc* away from the monument but, frustratingly, left access roads and services running quite close to the ringfort. It was this, together with visual setting, that was sufficient to support refusal.

Future Ownership and Access

There is general consensus amongst the consultees that efforts should continue to be made to bring Tusk Earthwork into public ownership, preferably that of the Office of Public Works (DoEHLG) or, failing that, to facilitate public access. At present, the monument is on private land and the public therefore have no right of access. If the monument was in public ownership or long-term lease, walkways from Cruachan Aí would enable visitors to combine visiting the monument with an explanation in the exhibition of its context and importance. It would also provide the 'green lung' that is so vital to the centre succeeding and which is at present missing.

Finian Matthews, Principal Officer for the National Monuments Service of the DoEHLG, has been consulted on this matter. He confirms that the DoEHLG would happily consider a new planning application for the site if it contained more carefully thought through archaeological and visual impact assessments. He also confirmed that the DoEHLG would be willing to consider taking ownership of the monument if it were gifted to them, perhaps but not exclusively if it were part of a renewed planning application. However, the DoEHLG would not consider purchasing the land.

Action 30

We recommend that efforts by all parties to bring the monument into public ownership or long-term public use are continued. The landowners' agent has indicated his client's previous willingness to consider this issue. We believe that the concerns expressed by DoEHLG during the planning process, and

which were upheld by An Bord Pleanála, could be adequately addressed within a revised development design and a more comprehensive archaeological assessment.

- Recommendation 24** The landowners or their agents might consider engaging an archaeological consultant with a view to making a revised development application more acceptable to DoEHLG. Tusk Action Group could then work with that consultant and the OPW to formulate routes and interpretation opportunities, should Tusk Earthwork come into public use.

Interpretation and presentation of the site

Whilst the site remains in private ownership, little can constructively be done by public bodies to enhance it. However, there is a broad consensus that the monument as exposed should remain open and would, should public access be acquired, provide much for the visitor to see and contemplate. To fully exploit the monument under such circumstances, the following actions would need to be undertaken.

- Action 31** Further seasons of archaeological work should be undertaken, in order to expose more fully the masonry remains and to provide a context for interpretation. Ongoing excavation would also provide the visitor with the experience of watching archaeological excavation in progress.

- Recommendation 25** Should the site come into public use, safe public access will need to be organised, with stiles and/or self-closing gates installed via Cruachan Aí. Access within the site should be assessed in terms of current and projected visitor numbers, as well as related activities such as school visits and organised interpretation events. If active conservation measures are put in place, visitor management will be required to maintain features such as sheep fencing and planting. It should be noted, however, that no such works could take place without the agreement of the DoEHLG.

- Recommendation 26** The exposed archaeological masonry remains appear at present to be structurally sound. However, for these remains to remain exposed for public viewing the site would need to be made safe for the public (*ie* by backfilling deep excavations and removing vertical trench edges).

- Recommendation 27** Repointing where necessary would prevent a build-up of soil and vegetation and protect the exposed stonework from water and frost ingress.

- Recommendation 28** An interpretation board informed by the results of investigation and detailing the different historical phases on view (with reconstruction drawings) should be placed beside the monument. This should also interpret the natural heritage aspects of the site, and articulate the grazing management regime.

Description of flora and fauna to be found at Tusk Earthwork

The site is almost entirely lightly-grazed (by sheep) grassland that is dominated by a mixture of grass species including cocksfoot, perennial ryegrass and annual meadow-grass. The main feature of interest is the spring that emerges from the foot of the earthwork, some 25-30m from the adjacent Ogulla River. The spring flows in a small meander and has a mixed substrate

of stone and a small amount of silt and earth. Some algae and macrophytes were just visible but the high state of the water at the time of inspection did not allow identification. It is believed that the discharge of the spring and the level of the river were unusually high at time of survey. An area of c. 35m² was partially inundated, but the absence of aquatic macrophytes would indicate that this was temporary. The river has been canalised for most of the area under study and was very fast-flowing. Some bank works have taken place on the opposite side of the river.



Figure 30: Channel of flow from the *Tobarnakirky* well. Flows at time of visit were reported to be much higher than usual for time of year.

No evidence was found of any mammals using the Tusk Earthwork site, although the staff of the Discovery Programme excavations have reported that they found nesting field mice during the summer season. However, whilst the site offers little roosting habitat, it is sufficiently sheltered to provide feeding areas and passage for several species. No reptiles or amphibians were observed but it is likely that the wetter areas of the site are of value for spawning common frogs. While a brief survey of the Ogulla River indicated that this stream contains good quality water, it is unlikely that the river could support otters. The timing of the study did not allow for a survey of freshwater species such as crayfish or bivalves.

The south-western boundary of the site includes the grounds of Cruachan Aí which is fringed with a small hawthorn hedgerow of up to 3.5m height and 2m wide, and gappy in places due to grazing. A short (c. 15m) length of old stone wall, a remnant of a longer wall, adjoins the boundary of Cruachan Aí and runs along part of the river. The wall is in some disrepair but allows habitat for wall pennywort, hairy bittercress and mosses, as well as lichens such as *xanthoria* and other crustose species.

The northern boundary of the site comprises a ditch which was wet in places but without a flow being evident. Three mature hawthorn bushes are spaced along the western part of this, and leafy lichens *Parmelia caperata* and *Physconia distorta* were found on these bushes. An extensive bed of iris

(yellow flag) is located to the east of this boundary and indicates that this area is permanently wet.

The eastern boundary of the site adjoins the N61 road, from which it is separated by a block wall. Thistles are abundant in this part of the site. The boundary is species-poor, having only three mature hawthorn bushes.

Bats

Although the survey did not show extensive opportunities for bat habitat or activity, the Ogulla River would hold insect prey species. There is, however, little mature vegetation of benefit to bats at this site. The planting of native tree-species would create bat roosting and hibernation habitat, as well as wind shelter in the long-term, although this would inevitably conflict with the visual setting of the monument and any buried archaeology.

Birds

Whilst the open grassland of the site is of some benefit to a number of bird species, there was little habitat recorded on this site that was of benefit to birds. The hawthorn hedgerow adjacent to Cruachan Aí would offer some nesting habitat, but this would be quite exposed and limited in extent.

Native tree species could be planted around the boundary of the site. In particular, the walls of the southern and western boundaries of the site could be planted with native trees and shrubs. This would enhance the site for a number of groups of species but may, however, conflict with the heritage resource of the site.

Plants and Plant Management Regime

The greatest area of the site is grassland. At the time of survey, the site was being grazed by sheep, and it is suggested that this regime be continued. However, if the grazing pressure could be lightened by the rotation of grazing during the year, around different parts of the site, this would be of benefit to non-grassy herb species, many invertebrates and consequently birds (Fuller & Gough 1999).

Many species would benefit from a programme of tree-planting at the site, although as previously outlined, this might conflict with the archaeological and heritage resource of the site. A mix of suitable native species could be planted on the site boundary, particularly to the south and east of the site. This would have positive impacts on birdlife, and for bats, by providing habitat and shelter.

Recommendation 29 The spring is very important from both ecological and heritage perspectives, and should be protected. It is recommended that the channel of this spring, source and surrounding areas be cordoned off using suitable fencing materials. This will limit damage to the substrate and reduce the risk of siltation to the river. It may be beneficial to erect a bridge or boardwalk over the wet areas to allow visitor access.

Recommendation 30 The Ogulla River has been canalised in this area and flows quickly past the site. The bank on the Tusk Castle site has been heavily altered in the recent past, and allows little space for wild species or future naturalisation. It would be beneficial from a natural heritage perspective for some trees to be planted along the Tusk Earthwork side of the stream. This would serve to protect the banks, as well as provide habitat. Alder and willow would be suitable species.

The Study Area

Managed rural walkways/heritage trails

Many consultees emphasised the importance for future tourism of devising and aiding walks (guided or otherwise) to the monuments. It is important that these walks, suitably advertised and subtly signposted, start and finish at Cruachan Aí if at all possible, both for the educational role that Cruachan Aí plays and because they would be a valuable source of income to the café.

In 2004, the Bane report on Cruachan Aí commented that 'Since the late 1990s, the matter of negotiating access to the monuments and the provision of heritage trails around them has received little attention. This critical issue must be resolved if Cruachan Aí is to have any chance of success in identifying, communicating with and selling to potential niche markets.' This remains the case.

It is noted that Fáilte Ireland distributes funds to County Managers as part of their Infrastructure Tourism Product Sub-Programme. Rural Heritage Trails and Signage developments are one strand eligible, in order to further extend the rural network of heritage and other themed routes in the country.

The Táin Trail Cycling Route makes Rathcroghan one of its focal points. Unfortunately, it is not well publicised, and some of those we consulted felt that an explanatory leaflet was required.

Action 32 A walk, encompassing the church field at Carns, the O'Connor inauguration mound at Carnfree, the moated site and the other nearby barrows and prehistoric remains (with explanatory panels and finger posts as necessary), is one option (see Appendix 9). This could prove relatively easy to achieve, providing satisfactory insurance has been arranged, as the owners of the land on which most of these monuments lie are positive to the idea of visitors crossing their land to visit the monuments.

Action 33 Another walk could start at Cruachan Aí, head towards the holy well at Ogulla, with its adjacent church site and moated site, continue across country to the Carns ridge and thence to Tusk. Ogulla Holy Well is the source of the river, and is where St Patrick was reputed to have baptised the pagan princesses Eithne and Fidelma, daughters of King Laoghaire of Tara.

Recommendation 31 The drawback with these walks, if started from Cruachan Aí, is that they would depend upon significant distances being covered along public roads. For this reason, it is reasonable to expect that most people will make the journey by car. To tie people into starting and finishing at Cruachan Aí we therefore recommend providing suitable guides (audio or otherwise), which current technologies allow to be downloaded onto mobile phones or personal stereos. The guides would also, of course, much enhance the visitor's appreciation of the landscape and monuments they are visiting.

The staff of Cruachan Aí are progressing plans for managed rural walkways, through the establishment of a steering committee which includes members from Teagasc, the Roscommon County Enterprise Board, Fáilte Ireland, Roscommon Historical and Archaeological Society and the Roscommon County Development Board.

The most obvious walk of all, and that potentially most easily achieved, is the route which would take the visitor from Cruachan Aí, across the N5 to the priory, thence back across the road to Tusk Earthwork, across the Ogulla River to Tusk Castle, and back to Cruachan Aí. This can only be achieved once public access to Tusk Castle and Tusk Earthwork has been gained.

An additional route between the prehistoric monuments centred on Rathcroghan is also desirable, and has previously been recommended in the Rathcroghan Conservation Management Plan. One version of this route has been suggested by a member of Cruachan Aí staff, and is appended to this report (Appendix 9).

Tourism and the Cruachan Aí Centre

First and foremost, it is important to state that we think the centre a fabulous asset, and the community actions that have led to its existence are to be praised. As a focus for community engagement and for those visiting the rich archaeological landscape that surrounds it, and the motor for developing the tourist potential of Tusk, the centre should be playing a critical role. The success of the centre is also the catalyst to realising the potential of the three medieval sites. This role has been supported by nearly everyone we have consulted and, importantly, its role in interpreting Rathcroghan has the continued support of the Office of Public Works (OPW). In addition, Finian Matthews of the National Monuments Service of the DoEHLG has intimated that the Department is *very* interested in the role of the centre as a focus and access point for the wider historical and archaeological landscape, and, to this end, would be willing to consider entering into a partnership arrangement of the centre.

We understand that it is not the intention of the OPW to develop any new interpretation facilities for Rathcroghan, which is now in their ownership, and Cruachan Aí may therefore be looking to the OPW for aid in developing the centre.

Roscommon County Enterprise Board and Economic Development Committee of the County Development Board have expressed their long-standing concern that Cruachan Aí is not in a position to provide access to any of the monuments which it interprets. They consider that the potential to provide access to the Tusk Earthwork would be of fundamental benefit to the centre.

Rebranding the centre

It is clear to everyone that the centre attracts far too few visitors and, with the levels currently visiting, appears unsustainable. Many we consulted with felt that this could be remedied by more effective marketing, and renewed attempts to draw in passing trade. Whilst the former is implicit, we believe that the centre cannot rely on passing trade and, consequently, needs to re-position itself as a national destination, and market itself as such.

Recommendation 32 In tandem with this belief, we are sure that the centre is misnamed. *Cruachan Aí* means nothing to the foreign tourist and, we suspect, a not insignificant number of Irish. It seems critical to us, and we recommend, that the centre is given a name that potential visitors will understand. The Bane Marketing Strategic Review of 2004 determined that Ireland is the largest source market for visits to the exhibition. Happily, the story that Cruachan Aí relates hinges on a name that is recognisable to many Irish people, and also a number of foreigners. The Irish epic *Táin Bó Cúailnge* starts at Cruachan and is central motif to much of the local archaeological landscape that the centre interprets. We believe that the centre should be re-named to draw upon the *Táin* cycle (and our preference is The *Táin* Centre).

Action 34 From this perspective, it is unfortunate that a large sum of money has recently been spent on signage. For this reason, renaming the centre should only be considered as part of a larger re-positioning of the centre. In the meantime, the management of Cruachan Aí should conduct a poll to discover whether the name is appropriate and, if not, what alternatives visitors and stakeholders would prefer.

The Cruachan Aí Centre exhibition

The exhibition at Cruachan Aí is professionally designed and of high quality. Unfortunately, we believe that the exhibition fails to enlighten the first-time visitor. For those with no prior knowledge of the archaeology of the area, or the importance of its monuments (or even what an archaeological monument is), the exhibition is opaque. It is not self-guiding, chronological or interactive, and it lacks a clear flow.

Recommendation 33 The consensus amongst consultees, and one we support, is that the exhibition needs a comprehensive redesign, in order to make the *Táin* the main theme. The *Táin* provides the common thread between Croghan, the ancient capital of the kingdom of Connacht and a Celtic royal site, the complex of archaeological sites which surround Tusk, and the Connacht O'Conors, whose history is intertwined with that of Tusk's. The redesign would enable a much clearer focus to be put on the medieval importance of the Tusk archaeological landscape, and would also provide the opportunity to incorporate the results of the new research into Rathcroghan and other monuments which has been undertaken in recent years.

Action 35 Our consultations revealed a consensus view that the exhibition needed redesigning or, at the very least, upgrading. We have no doubt that a redesign would prove costly, but Tusk Action Group is fortunate to be able to draw on the broad interest and support provided by the Discovery Programme and the Department of Archaeology, NUI Galway. The first step in this process is to commission re-branding and exhibition re-design ideas from a number of professional companies.

Several consultees felt that the centre should display artefacts recovered from the locality. Our view is that the centre's nature precludes the effective and meaningful display of objects, and it would be wiser for the centre to focus on its core activities – interpretation and presentation. The environmental and

security restrictions that any such display would necessitate would also place an unnecessary burden on the centre and its staff.

The shop

The centre's shop was universally praised by those we consulted. It facilitates those with an interest in the O'Conors, and provides an outlet for local arts and crafts. Unfortunately, whilst a shop and café may be significant financial elements, they should not be the main driver of a successful heritage centre.

Developing the centre's education roles

It is striking that so few school parties use the centre. In part this is probably because, despite the best intentions of the centre's original designers, the exhibition is not particularly suited to children of school age. Suggestions we received for improving its attraction to children included the provision of objects that they could handle, and buttons that they could press. One suggestion was for the audio-visual room to be furnished with costumes that would allow them to act out the Táin. It is this kind of tactile experience that children will relate to, although supervision and dealing with wear and tear will be considerations.

In tandem, the centre cannot at present provide school parties with the outside space in which they can eat their lunch and let off steam. This could be of course be remedied if the centre's curtilage was expanded to include Tusk Earthwork.

Action 36

Much more can therefore be done to include Cruachan Aí in the itineraries of schools and other community organisations. Cruachan Aí should redouble efforts to making sure that all the region's schools and other community organisations are aware of the centre and the links between the national school curriculum and the story of Cruachan.

Partnering with other heritage centres

The Táin is celebrated at another of Ireland's premier monuments – Navan Fort (*Emain Macha*) in Armagh. Drawing this parallel is important and illustrative on a number of levels, and reading the NIAO's report *Navan Centre* (2004) is extremely revealing. After opening in 1993 it closed in 2001, and re-opened again in 2005. It is now open seasonally, but runs schools and educational events year-round.

The Navan Centre is a very high quality centre, architect-designed to the highest standards and based upon the remains of the Iron Age structure under the mound at Navan Fort. The centre has a large shop, restaurant, three large room of displays, and is currently very high-tech, making full use of audio-visual interpretative media and touch-screens which present lots of information for visitors to absorb.

A study, just completed, recommends that this presentation be dismantled, simplified technologically, and the themes be very much simplified/reduced. Navan Centre has an audio-visual auditorium that runs four films on loops, and offers guided tours of the hillfort which lies less than half a mile away. They also run living history events based in a reconstructed Iron Age round house adjacent to the centre.

This is very similar to the aspirations for the Cruachan Aí centre that we received during the public consultation exercise.

The Navan Centre has never been self-sustaining, and may not be intended to be self-financing – Armagh Council manages and finances the centre. A new study is based upon expectations of achieving 45,000 visitors in first couple of years, raising to 55,000. It is proposed to brand it as the focal centre for tourism in County Armagh.

Action 37

The Navan Centre's presentation is focused on the story of *Macha* in the Táin, rather than the complete Táin story. They have discussed partnering/cross-marketing with Bru na Boinne (who are willing, but as they operate at capacity this is not high on their agenda). We recommend that the Tusk Action Group establish a working party with The Navan Centre to explore how these centres, and potentially others, might build on their commonalities and potential.

There are other parallels to Tusk which may also offer useful models in terms of heritage management and presentation. Notable among these are the royal burial sites at Sutton Hoo, Suffolk (UK) and Gamla Uppsala (Sweden), each of which are of national importance.

In conclusion, partnering with other centres to cross-market the origin and culmination of the Táin is potentially a powerful combination which might create the necessary foundation to make Tusk a destination in its own right.

Marketing

Action 38

Many consultees thought that marketing of Cruachan Aí could be improved. If our suggestion for rebranding the centre finds favour, Cruachan Aí should market their interest in the Táin much more widely. Marketing can range from leaflets that appear in the promotional packs provided in hire cars, to closer links with Fáilte Ireland. Several consultees raised the point that the N5 is used by coach tour operators, but that the centre does not seem to overly benefit from this ready market. A relatively simple marketing exercise is therefore to promote the advantages of the centre and, of course, the café and toilets, with all tour operators who use the route. More particularly, however, the centre needs to confirm an holistic marketing strategy which is more closely linked to the strategies of tourist information centres nationally and locally.

Open Days and Other Events

Cruachan Aí has hosted a number of events, some successful, others less so. In tandem, Open Days for Tusk Earthwork have attracted 300 or more people. As the centre's management fully realises, several successful events per year would immeasurably boost the viability of the centre, and the hosting of such events should therefore remain a priority for Cruachan Aí. Events that can emphasise the medieval aspects of the area would help to cement the importance of Gaelic lordship in the story of Tusk.

Car-parking

Several consultees thought that car-parking provision within Tusk was inadequate. At present facilities are available to the west of Cruachan Aí, in the car-park of O'Connors Lounge and Bar. This car-park is in private ownership, and this situation will not be satisfactory in the long-term, especially if visitor numbers can be increased.

Some consultees suggested that a car-park could be established on the privately-owned land to the east of Cruachan Aí. This would presumably have the advantage of introducing space for coach parking, and could of course be used during funerals at Tusk Priory. However, concerns have already been raised by the DoEHLG about development of this land, and the establishment of a car-park would undoubtedly detract from the setting and context of the monuments that form Tusk Gaelic Medieval Complex. We cannot, therefore, recommend the building of a car-park in this location.

However, if and when Tusk is bypassed, an opportunity may arise to narrow the existing road, and thus allow formal roadside car-parking to be established.

Flora and Fauna

The wall adjacent to Cruachan Aí and the Ogulla River should be repaired and conserved, as it is a useful plant habitat.

Recommendation 34 Concern was raised during the consultation exercise that the periodic external cleaning of Cruachan Aí might be threatening the water quality in the adjacent river. It is suggested that the use of cleaning products should not have a significant negative impact on the adjacent river if measures are taken to prevent spillages, run-off and excessively high concentrations of product used.

Action 39 The erection of bird and bat boxes at Cruachan Aí would be of long-term benefit to the surrounding sites, and a suitably qualified specialist should be engaged to erect these and advise on their maintenance.

7. TULSK GAELIC MEDIEVAL COMPLEX ACTION PLAN 2009-2011

In this section of the report, we list the series of actions identified in Section 6. These are ordered into actions involving either Conservation, Access or Interpretation and Presentation. All the recommended actions are, of course, entirely dependent on funding being available, and in the last column we provide suggestions on sources of possible funding.

The tables are divided into Priority 1 works (for the year 2009), Priority 2 works (for the year 2010) and Priority 3 works (for the year 2011). The location of conservation works by priority is shown on Figure A2.

For details and locations of all conservation works refer to tables and plates in Appendix 1 of this report. Geographic packages of repair work are denoted by the use of the colours in Table 1 of Appendix 1, and the associated plate caption labels, and are also shown on Figure A1.

In the second column of the action plan, conservation repairs as listed in Appendix 1 are prefixed with an 'R', and actions from Section 6 are not.

Works begun and not completed should be carried over into the following year.

Estimated costs for each conservation work package are provided in Appendix 10.

2009 CONSERVATION				
Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
1	21	Tulsk Priory	Undertake bat survey of any parts of the buildings at Tulsk to undergo maintenance or conservation works.	Roscommon County Council
1	3	Tulsk Priory	Undertake a rectified photographic survey of Priority 1 elevations of the priory.	The Discovery Programme
1	4	Tulsk Priory	Apply to the DoEHLG for permission to conduct Priority 1 works. Engage an archaeologist.	Roscommon County Council
1	8	Tulsk Priory	Train Roscommon County Council employees in the methods and use of lime mortar and stone masonry by engagement with conservation works.	Roscommon County Council
1	1, 2, 5 R3, R5, R7, R8, R9, R13, R14, R15, R16	Tulsk Priory tower house	Repair the tower house wall at junction with the north nave wall: repoint, insert gallettes and stitch walls together with stainless steel cintec anchors, reset stones. Tower house wall, nave north wall east of tower house wall: Remove ivy and vegetation from top of the walls and repoint the top course. Tower house wall west elevation; repairs/rebedding of stone around two windows.	Civic Structures Grant Scheme, Roscommon County Council Conservation Grants for Protected Structures

1	1, 2, 7 R18, R19, R20, R28	Tulsk Priory nave south wall and transept north gable wall	<p>Nave south wall; repair flat arch over the window and repoint stones to sill. Carefully remove ivy, prop arch, pack and repoint.</p> <p>Remove ivy and repoint top of wall, and repair indents at lower level.</p> <p>Transept north gable wall: provide access, and temporary propping, remove vegetation, rake out and repoint.</p> <p>Improve stability of north gable wall by repointing. Carry out measured survey and repeat annually to measure verticality.</p>	Civic Structures Grant Scheme. Roscommon County Council Conservation Grants for Protected Structures
1	7 R30, R31, R32, R33, R34	Tulsk Priory transept south gable wall	<p>Transept south gable wall: provide access, and temporary propping, remove vegetation, rake out and repoint.</p> <p>Improve stability of south gable wall by repointing. Carry out measured survey and repeat annually to measure verticality.</p>	Civic Structures Grant Scheme, Roscommon County Council Conservation Grants for Protected Structures
1	8 R46	Tulsk Priory Grace tomb	Carefully remove the trees and vegetation and relay and replace missing roof flags, add lead flashing at eaves.	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures And Heritage Council's Buildings at Risk Scheme
1	10	Tulsk Priory Graveyard	Clear the undergrowth and trees that have been allowed to develop in the interior of the enclosure in the south-western part of the graveyard.	Rural Social Scheme
1	11	Tulsk Priory Graveyard	Re-fix and paint the ironwork to the enclosure in the south-western part of the graveyard.	Roscommon County Council
1	12	Tulsk Priory Graveyard	Install a maintenance regime to prevent ivy and trees damaging boundary walls. Remove waste materials away from the wall.	Rural Social Scheme
1	13	Tulsk Priory Graveyard	Establish a compost area in order to assist in the disposal of old flowers and other graveyard refuse.	Rural Social Scheme
1	22	Tulsk Priory Graveyard	Plant shrubs attractive to insects in order to provide better feeding opportunities for bats.	Heritage Council 'Biodiversity' grant
1	23	Tulsk Priory Graveyard	Commence a new grass and herb mowing frequency system (the '1-2-3 system').	Rural Social Scheme
1	27	Tulsk Priory Graveyard	Dedicate an area or areas of the site to wildlife.	Heritage Council 'Biodiversity' grant
1	39	Cruachan Aí	Erect bird and bat boxes at Cruachan Aí	Heritage Council 'Biodiversity' grant

2009 ACCESS

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
1	28	Tulsk Castle	Conservation Officer to contact landowner to offer advice on piercing an opening into the post-medieval wall surrounding Tulsk Castle.	Roscommon County Council
1	30	Tulsk Earthwork	Continue efforts by all parties to bring Tulsk Earthwork into public ownership or long-term public use.	n/a
1	32	The Study Area and beyond	Establish a heritage trail to encompass the church field at Carns, the O'Connor inauguration mound at Carnfree and the other barrows and prehistoric remains.	Fáilte Ireland Tourism Product Development Sub - Programme: Infrastructure: 'Rural Heritage Trails and Signage' via Roscommon County Council.
1	33	The Study Area and beyond	Establish a heritage trail to start at Cruachan Aí, head towards the holy well at Ogulla, with its adjacent church site and moated site, and continue across country to the south-east to the Carns ridge and then back to Tulsk.	Fáilte Ireland Tourism Product Development Sub - Programme: Infrastructure: 'Rural Heritage Trails and Signage' via Roscommon County Council.

2009 INTERPRETATION AND PRESENTATION

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
1	14	Tulsk Priory Graveyard	One or more interpretation panels (detailing the priory's different historical phases) should be prepared, and sited in sympathetic locations such as the entrances.	Heritage Council 'Local Heritage' grant
1	15	Tulsk Priory Graveyard	An interpretation sign should also be erected to highlight the natural heritage aspects of the site.	Heritage Council 'Local Heritage' grant
1	16	Tulsk Priory	Prepare self-guiding information leaflets on the natural heritage and historical development of Tulsk Priory, to be made available at Cruachan Aí.	Heritage Council 'Local Heritage' grant
1	17	Tulsk Priory Graveyard	Visitors should be encouraged to take home their discarded flower and display wrappers and other rubbish by including text to that effect in the self-guiding information leaflets and interpretation panels.	n/a

1	18	Tulsk Priory	Re-locate spotlighting at a lower level. The lux level must be considered carefully, since it might conflict with the habitat for bats and other species.	Roscommon County Council
1	19	Tulsk Priory	Erect a road-side finger post or similar, preferably on the opposite side of the road so that it does not detract from the monument.	Failte Ireland, Tourism Product Development Sub - Category: Historic Towns, via Roscommon County Council
1	20	Tulsk Priory Graveyard /Cruachan Aí	Organise at least one heritage event per year, to incorporate education on the natural heritage of the sites.	Heritage Council 'Local Heritage' grant Failte Ireland Festival and Cultural Events Initiative 2009
1	29	Tulsk Castle	Conduct non-intrusive archaeological surveys.	The Discovery Programme
1	31	Tulsk Earthwork	Undertake further seasons of archaeological work, subject to funding and access being available.	The Discovery Programme
1	34	Cruachan Aí	Conduct a poll to discover whether the name Cruachan Aí is appropriate and, if not, what alternatives suggestions visitors and stakeholders would prefer.	n/a
1	35	Cruachan Aí	Commission re-branding and exhibition design ideas from a number of professional companies.	National Monuments Service of the DoEHLG and the National Monuments Section of the Office of Public Works.
1	36	Cruachan Aí	Reconcentrate on to ensuring that all the county's schools and other community organisation's are aware of the links between the national school curriculum and the story of Cruachan.	Cruachan Aí staff
1	37	Cruachan Aí	Establish a working party with the Navan Centre and others to explore how they might build on their commonalities and potential.	Cruachan Aí staff
1	38	Cruachan Aí	Pursue a holistic marketing strategy which is more closely linked to the strategies of tourist information centres nationally and locally.	Cruachan Aí staff

2010 CONSERVATION

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
2	21	Tulsk Priory	Undertake bat survey of any parts of the buildings at Tulsk to undergo maintenance or conservation works.	Roscommon County Council
2	3	Tulsk Priory	Undertake a rectified photographic survey of Priority 1 elevations of the priory.	The Discovery Programme
2	4	Tulsk Priory	Apply to the DoEHLG for permission to conduct Priority 1 works. Engage an archaeologist.	Roscommon County Council
2	1, 2 R1, R2, R4, R6, R10	Tulsk Priory tower house	Tower house wall east elevation, spray and remove ivy, repoint corbelling of stones in former chimney Remove tree root in top south corner or tower house wall, relay stones. South nave wall east of tower house wall. Relay top course on lime water	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
2	R35	Tulsk Priory transept south gable wall	South west corner dig out roots and repair corner	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
2	R36, R37	Tulsk Priory transept west wall	Repoint and re-bed top course of wall and repair recess	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
2	1, 2 R43, R44	Tulsk Priory transept east wall	Remove ivy from pier, rake out and repoint stonework Rebed top course along the wall	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
2	8 R47, R48	Tulsk Priory Grace tomb	Repoint gap between wall and buttress Repair debonding stone cladding with remedial ties.	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for

				Protected Structures And Heritage Council's Buildings at Risk Scheme
2	23	Tulsk Priory Graveyard	Continue with the '1-2-3 system' grass and herb mowing frequency system.	Rural Social Scheme
2	24	Tulsk Priory Graveyard	Plant against the walls of the eastern and northern boundaries of the graveyard. Use ash, hazel and blackthorn.	Rural Social Scheme, Roscommon County Council
2	26	Tulsk Priory Graveyard	Plant non-native, non-invasive species which will be of benefit to invertebrates and birds.	Rural Social Scheme, Roscommon County Council

2010 ACCESS

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
No remaining actions				

2010 INTERPRETATION AND PRESENTATION

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
2	31	Tulsk Earthwork	Undertake further seasons of archaeological work, subject to funding and access being available.	The Discovery Programme

2011 CONSERVATION

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
1	21	Tulsk Priory	Undertake bat survey of any parts of the buildings at Tulsk to undergo maintenance or conservation works.	Roscommon County Council
3	3	Tulsk Priory	Undertake a rectified photographic survey of Priority 1 elevations of the priory.	The Discovery Programme
3	4	Tulsk Priory	Apply to the DoEHLG for permission to conduct Priority 1 works. Engage an archaeologist.	Roscommon County Council
3	1, 2 R11, R12, R17, R17a	Tulsk Priory tower house	South nave wall east of tower house wall (8m high section), spray and remove dense ivy both sides rake out joints and deeply repoint. Rebed and repoint top course. Tower house wall west elevation spray and remove dense ivy rake out joints and deeply repoint. Repair recess in wall.	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
3	1, 2 R21, R22, R23, R24, R25, R26, R27	Tulsk Priory nave south wall and transept north gable wall	Rebuild and repoint missing parts of wall at low level, rebuild recesses. Rake out and repoint column crack. Spray, remove ivy, at west end of wall rake out and repoint wall. Record and collect loose stones on the ground.	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
3	R29, R29a, R29b	Transept south gable wall	Repair stonework around window.	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
3	R41	Transept west wall	East elevation rake out and deeply repoint	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
3	R38, R39, R40	Nave south west corner	Rebuild low level wall Rebuild partially collapse nave wall	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures

2011 CONSERVATION

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
1	21	Tulsk Priory	Undertake bat survey of any parts of the buildings at Tulsk to undergo maintenance or conservation works.	Roscommon County Council
3	3	Tulsk Priory	Undertake a rectified photographic survey of Priority 1 elevations of the priory.	The Discovery Programme
3	4	Tulsk Priory	Apply to the DoEHLG for permission to conduct Priority 1 works. Engage an archaeologist.	Roscommon County Council
3	R42, R45	Transept east wall	Local rebuilding of parts of wall	Civic Structures Grant Scheme and Roscommon County Council Conservation Grants for Protected Structures
3	23	Tulsk Priory Graveyard	Continue with the '1-2-3 system' grass and herb mowing frequency system.	Rural Social Scheme
3	25	Tulsk Priory Graveyard	Re-establish yew trees on the site.	Rural Social Scheme

2011 ACCESS

Priority	Action or Repair No.	Location and Zone	Summary description of action	Possible funding stream
No remaining actions				

2011 INTERPRETATION AND PRESENTATION

Priority	Action or Repair No.	Zone	Summary description of action	Possible funding stream
3	31	Tulsk Earthwork	Undertake further seasons of archaeological work, subject to funding and access being available.	The Discovery Programme

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CONSERVATION MANAGEMENT PLAN

VOLUME 2: APPENDICES



An Action of the County Roscommon Heritage Plan

This project has been funded by the Heritage Council and Roscommon County Council



**An Chomhairle Oidhreachta
The Heritage Council**



County Roscommon
Heritage Forum



Fóram Oidhreachta
Chontae Ros Comáin

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CONSERVATION MANAGEMENT PLAN

VOLUME 2: APPENDICES

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A	13 Jan 09	AS	Feedback from Tusk Steering Group incorporated	PE	AT
B	20 Feb 09	AS	Final feedback from Tusk Steering Group incorporated	PE	AT
C	20 Mar 09	AS	Revised Figures A5 and A6	PE	AT

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CONSERVATION MANAGEMENT PLAN

VOLUME 2: APPENDICES

CONTENTS

Page	
APPENDIX 1 TULSK PRIORY CONSERVATION WORKS	72
APPENDIX 2 SUMMARY OF ECOLOGY MANAGEMENT MEASURES	90
APPENDIX 3 BAT EVALUATION OF TULSK PRIORY	92
APPENDIX 4 EXAMPLES OF QUINQUENNIAL SURVEYS OR INSPECTIONS.....	101
APPENDIX 5 STRUCTURAL REPAIR DETAILS AND MORTAR SPECIFICATION.....	106
APPENDIX 6 LIST OF SPECIES RECORDED OR REFERRED TO IN THIS REPORT	112
APPENDIX 7 TULSK STEERING GROUP AND CONSULTEES.....	114
APPENDIX 8 LEGAL STATUS OF THE TULSK MONUMENTS, AND GRID REFERENCES.....	116
APPENDIX 9 MANAGED RURAL WALKWAYS	118
APPENDIX 10 COST ESTIMATES FOR CONSERVATION WORK PACKAGES.....	120
Table 1: Tusk Priory Conservation Works.....	72
Figure A1: Tusk Priory conservation works, by zone	73
Figure A2: Tusk Priory conservation works, by Priority Zone.....	71
Figure A3: Detail of Cintec stitching	110
Figure A4: Repointing details	111
Figure A5: Managed Rural Walk 1	118
Figure A6: Managed Rural Walk 2	119
Plate A1: Tower House Wall, East Elevation	78
Plate A2: Nave North Wall.....	79
Plate A3: Tower House Wall, West Elevation	80
Plate A4: Nave, South Wall	81
Plate A5: Nave South Wall	82
Plate A6: Nave South Wall, North Elevation	83
Plate A7: Nave South Wall/Transept North Gable Wall	84
Plate A8: Transept South Gable Wall, North Elevation Plate A9: Transept South Gable Wall, South Elevation 85	
Plate A10: Nave, South-West Corner.....	86
Plate A11: Transept West Wall, West Elevation	87
Plate A12: Transept East Wall	88
Plate A13: Grace Mausoleum.....	89
Plate A14: Bat roosting in the Grace Mausoleum	92

Plate A15: Roosting potential and bat evidence at Tusk Priory.	94
Plate A16: Brown long-eared bat in a window frame of the Grace Mausoleum.....	95
Plate A17: Roost opportunities in ivy, stonework and chimneys within Tusk Priory	96
Plate A18: Tree cover behind Tusk Priory and major roost opportunities in stonework	97
Plate A19: Cruachan Ai, Tusk Earthwork and Tusk Priory	98

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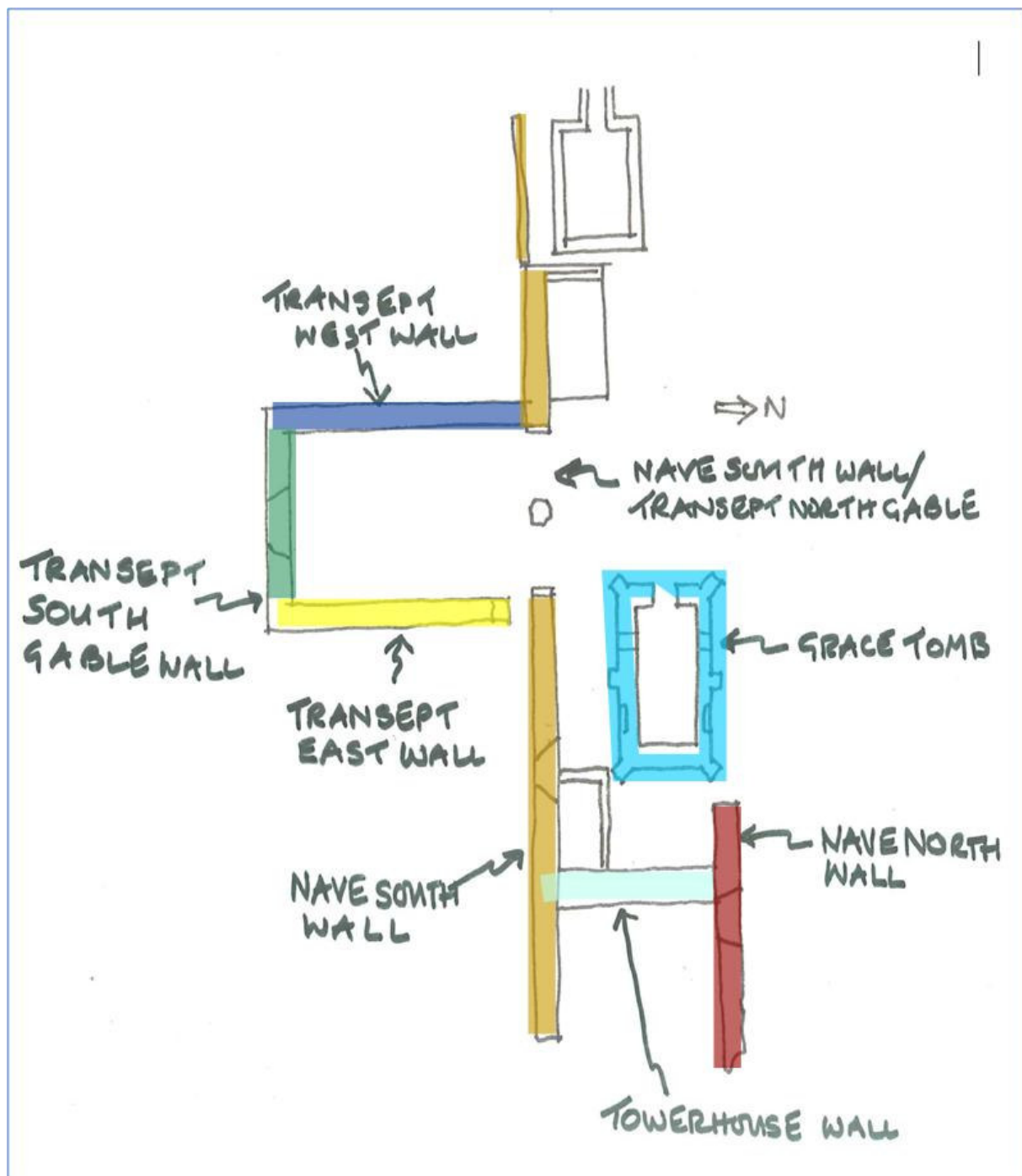


Figure A1: Tulsk Priory conservation works, by zone
Colours correspond with works listed in the Action Plan, Appendix 1 and Plates A1 to A13

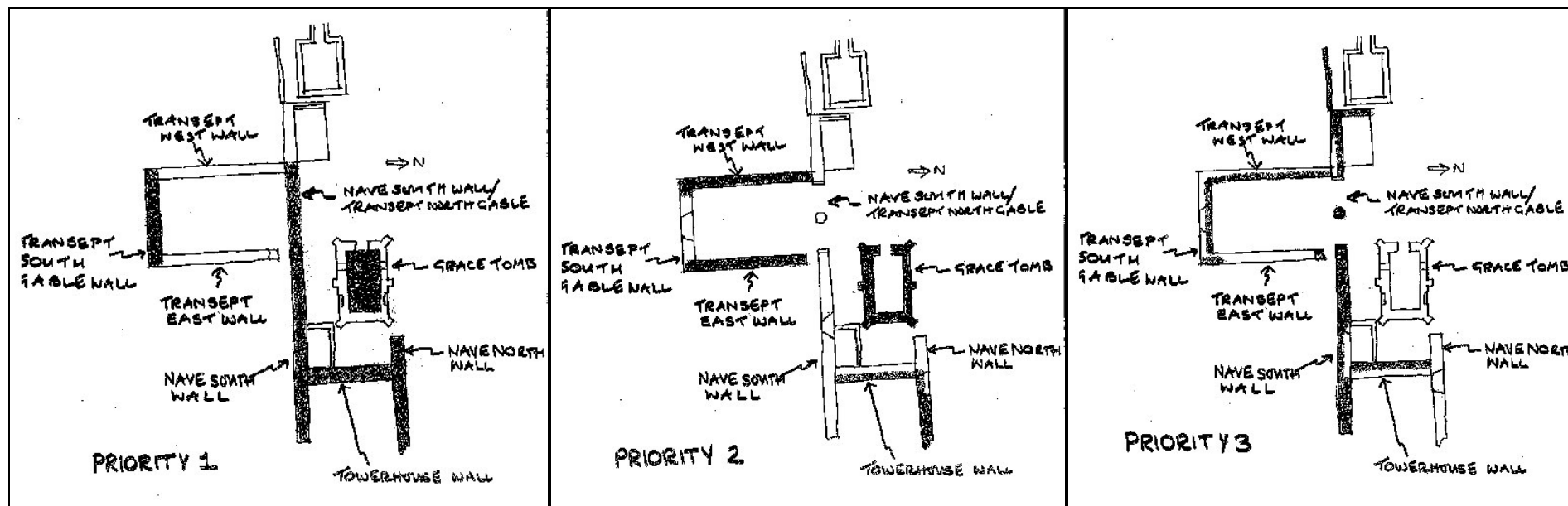


Figure A2: Tusk Priory conservation works, by Priority Zone

APPENDIX 1 TULSK PRIORY CONSERVATION WORKS

Table 1: Tusk Priory Conservation Works

For use with Plates A1 to A13 and the Action Plan in Volume 1.

Important Note: The information in this table is intended solely for costing purposes, and should not be used for construction without supporting construction drawings and detailed specifications.

Repair ref.	Plate	Zone location	Repair details	Extent	Priority
R1	1	Tower house wall, east elevation, southern end	Remove all dense ivy, including a number of stems of 100mm diameter (dia). Repoint corbelling stones in former chimney	3m x 0.5m	2
R2	1	Tower house wall, east elevation centre area	Remove moderate ivy, including 20mm-50mm dia stems	4m x 3m	2
R3	1	Tower house wall, east elevation, junction with north nave wall	Rake out joints, deeply repoint and reset stones in lime mortar	6m (height) x 2m x 0.6m deep	1
R4	1	Tower house wall, east elevation, top south corner	Remove tree of 150-200mm dia, cut back, remove stones by hand, dig out roots, treat with chemical and relay stones.	3m x 3m x 1m deep	2
R5	1	Tower house wall, top	Remove all ivy and vegetation from top of wall, rake out joints of debris and deeply repoint. Upper courses (1m height). Rebed top course. Repoint the flat arch over the fireplace, and pack with limestone galettes where necessary.	7m length, 1m height, 1.2m wall thickness, flat arch approx 1.5m long	1
R6	1	Tower house wall	Record and stack stones at base of wall.	Base of wall	2
R7	1	Tower house wall, junction with nave north wall	Pin the wall junction with proprietary stainless steel anchors: use Cintec anchors installed by licenced contractor.	4 no. groups of 3 cintec anchors 4m long drilled horizontally at intervals	1

Repair ref.	Plate	Zone location	Repair details	Extent	Priority
			<i>Refer to Figure A3</i>	up the wall	
R8	2	Nave north wall, just east of tower house wall	Remove ivy and vegetation, taking particular care to protect rendered window arch soffit (archaeologically significant) Rebed top course of wall on lime mortar, rake out back to sound mortar and deeply repoint/relay stones.	2m high x 1m long x 0.9m thick	1
R9	2	Nave north wall, east end of section just east of tower house wall, former window reveal	Rebed stones on vertical edge of window reveal.	0.6m x 0.6m x 0.9m thick	1
R10	2	Nave north wall, east end of most easterly section	Relay top course of wall, bedding on lime mortar across the full width of wall.	1m length, 0.4m high, 0.9m thick	2
R11	1	Nave south wall, east of tower house wall (8m high section)	Cut, spray and remove dense ivy both sides of wall, stems 100mm dia. Rake out joints back to sound mortar and deeply repoint with lime mortar.	3m long x 8m high x 2 no. elevations. Repoint minimum 50% of area (24m ²) maximum 100% (48m ²).	3
R12	4	Nave south wall, east of tower house wall (8m high section)	Remove ivy from top horizontal surface of wall, rebed top course of wall on new lime mortar.	3m long top course	3
R13	3	Tower house wall, west elevation Lower window	Replace left missing jamb stone with fallen stones, matched if possible, and rebed stones around window.	1 no. window	1
R14	3	Tower house wall, west elevation Upper window	Re-bed and repoint upper window stones.	1 no. window	1
R15	3	Tower house wall, west elevation junction with north wall	Repair wide joints by raking out, insert galettes and repoint	2m long x 3m high x 1.2m thick wall	1
R16	3	Tower house wall, west elevation junction with north wall	Rake out and repoint with galettes vertical joint	4m height of wall	1
R17	3	Tower house wall,	Clear out decayed roots, rake out debris, partially rebuild	1.5m x 1.2m x 0.5m	3

Repair ref.	Plate	Zone location	Repair details	Extent	Priority
		west elevation recess			
R17a	3	Tower house wall, west elevation	Top south section of wall not visible Allow to remove ivy, rake out and repoint	Area 4m x3m allow min 50% area max 100% area	3
R18	4	Nave south wall, Window arch	Provide access to arch and temporary prop to arch, remove ivy, pack between stones with stone galettes and dry pack with lime mortar.	1.5m length of arch	1
R19	4	Nave south wall, top	Remove ivy and vegetation along the top of the wall, lift and rebed loose stones in top course on lime mortar bed, repoint	9m horizontal length, 1m thick and sloping top surfaces of gable wall	1
R20	4	Nave south wall, Window sill	Remove ivy and vegetation from window sill, repoint and rebed stones on sill. Allow for repointing of window jambs	1.5m long sill x 1m wide 2 no. jambs 2m high x	1
R21	Not figured	Nave south wall, north elevation east of arch	Rebuild missing parts of wall at low level and mid level	Low level 4m length x 0.4m high x 1m thick Mid level 3m length x 0.4m x 1m thick	3
R22	5	Nave south wall, column	Rake out crack and repoint crack with lime mortar	3m length of crack	3
R23	6	Nave south wall, west end, north elevation	Repoint the loose stones.	3m x 2m area	3
R24	6	Nave south wall, west of arch, north elevation	Deep ivy cover to be removed and repoint area.	3 x 4m	3
R25	4	Nave south wall, south elevation, east of window to tower house wall	Remove ivy, deeply rake out joints and repoint.	4m x 4m	3
R26	4	Nave south wall, south elevation	Collect and record stones on the ground.		3
R27	4	Nave south wall, south elevation	Rake out and repoint at low level.	1m x 0.5m x 1m	3

Repair ref.	Plate	Zone location	Repair details	Extent	Priority
R28	7	Nave south wall / transept north gable wall upper triangle	Provide access up to approx 8m, (do not prop off wall). Rake out and repoint both sides of wall. Survey and produce measurements and drawings for out of plumbness	Triangle 6.5m long, 4.2m high, wall thickness 0.5m	1
R29	8	Transept south gable wall	Rebed stones on sill	2m length x 0.3m deep	3
R29a	8	Transept south gable, north elevation	Rebuild stonework to west side of window reveal	1m x 0.3	3
R29b	8	Transept south gable, north elevation	Rebuild hole at base of the wall	0.5 x 0.5	3
R30	8	Transept south gable wall, north elevation	Remove very dense ivy from wall,	8m high x 6.5m long elevation	1
R31	9	Transept south gable wall	Repoint top of gable length Allow to relay top 1m of stones	Length approximately 10m at up to 8m height, 1m thick wall, relay top 1m of wall	1
R32	9	Transept south gable wall	Provide access and temporary propping to the gable wall during works Survey and produce measurements and drawings for out of plumbness	Gable wall up to 8-9m height	1
R33	9	Transept south gable wall, south elevation	Remove very dense ivy from wall, about two thirds of area	8m high x 6.5m long elevation	1
R34	9	Transept south gable wall, south elevation	Deeply rake out and repoint half the area of the wall	8m high x 6.5m long approx 50%	1
R35	11	Transept south gable wall, south-west corner	Major ivy root 150mm dia to be dug out. Then fill hole with well compacted fill, rebuild corner, dry pack and gallette. May require temporary propping of the corner	Root excavation, rebuild wall 3.5m high x 1m x 1m	2

Repair ref.	Plate	Zone location	Repair details	Extent	Priority
R36	11	Transept west wall, west elevation	Repair large recess with fallen stone	2m x 2m	2
R37	11	Transept west wall, west elevation	Provide access scaffold from west side and repair the top 1m along the length of the wall. Rebed top stones on lime mortar and cap top of wall		2
R38	10	Nave south west corner	Rebuild partially collapsed section	2m long x 1.5m high x 1m thick	3
R39	10	Nave south west corner, Taafe Mausoleum and adjacent low-level wall	Repair leaning and partially collapsed wall to the south of the Taafe Mausoleum and remove vegetation from the roof.	5m long 0.8m high approx 280mm thick	3
R40	10	Nave west wall	Remains of wall; Rebuild above cornice	1m x 0.6m x 0.5m	3
R41	5	Transept west wall, east elevation	Generally good condition, no ivy cover, approximately 3.5m high Rake out and deeply repoint	Area 6m x 1m	3
R42	12	Transept east wall, north end	Rebuild north end	1m long 0.6m deep x 0.7m wide	3
R43	12	Transept east wall, Pier remains	Remove heavy ivy cover allow to rake out and deeply repoint	1.2m x 1.2m x 0.7m wide	2
R44	12	Transept east wall	Top of wall rebed top course along full length	6m long x 0.7m wide	2
R45	12	Transept east wall	Rebuild section of wall with lime mortar and fallen stones	1.5m high x 1.2m long x 0.4m deep	3
R46	13	Grace mausoleum	Remove the trees and vegetation and relay and replace missing roof flags, dress eaves details with lead to waterproof junction	Both elevations of roof	1
R47	13	Grace mausoleum	Repoint buttresses and joints between buttress and wall	6 no. buttress	2
R48	13	Grace mausoleum	Stone by stone, remove loose/displaced stones and rebed flush. Install remedial wall ties to restrain wall cladding	2 flank walls 2 no. x 6m x 2.8m	2

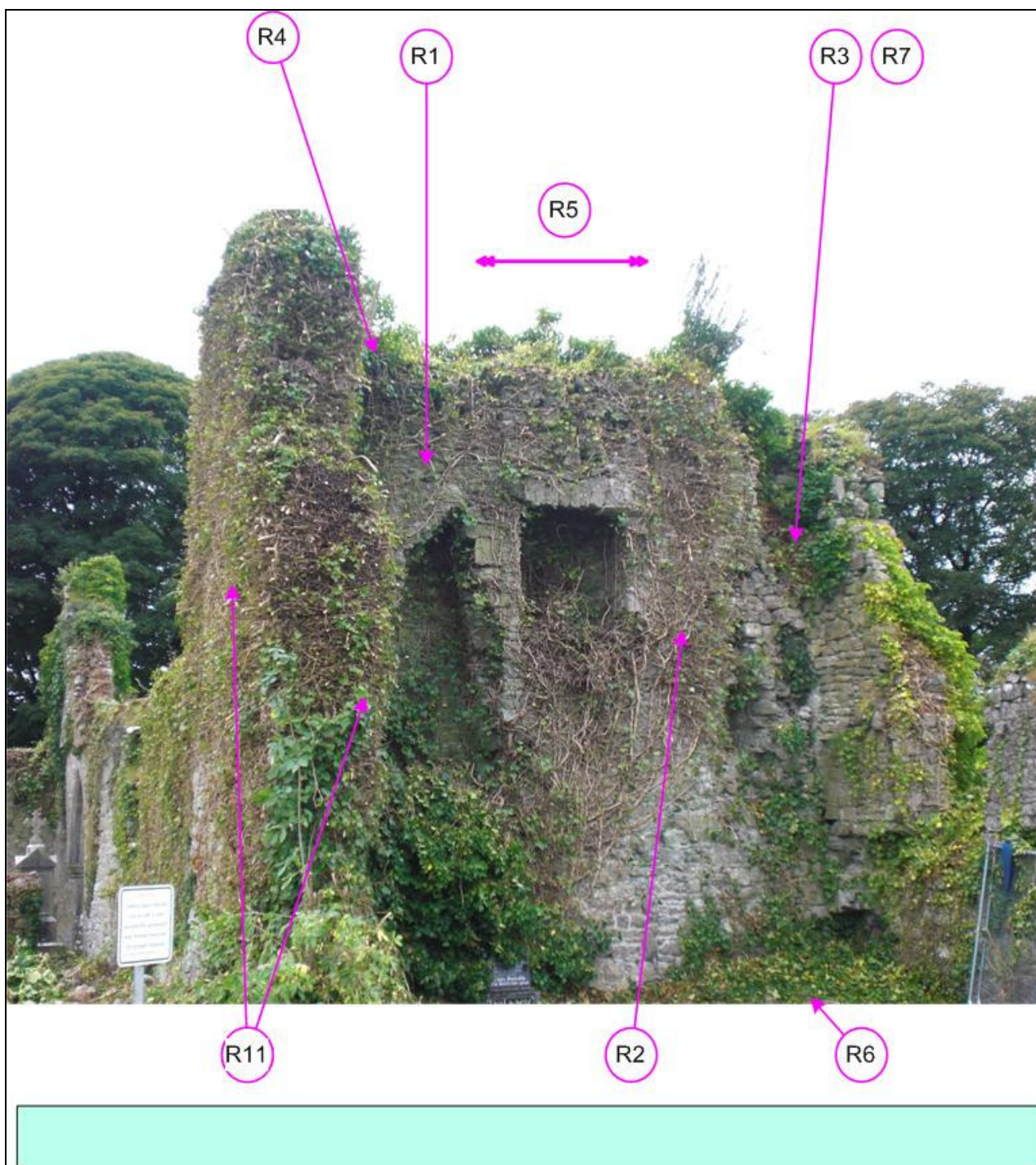


Plate A1: Tower House Wall, East Elevation



Plate A2: Nave North Wall



Plate A3: Tower House Wall, West Elevation

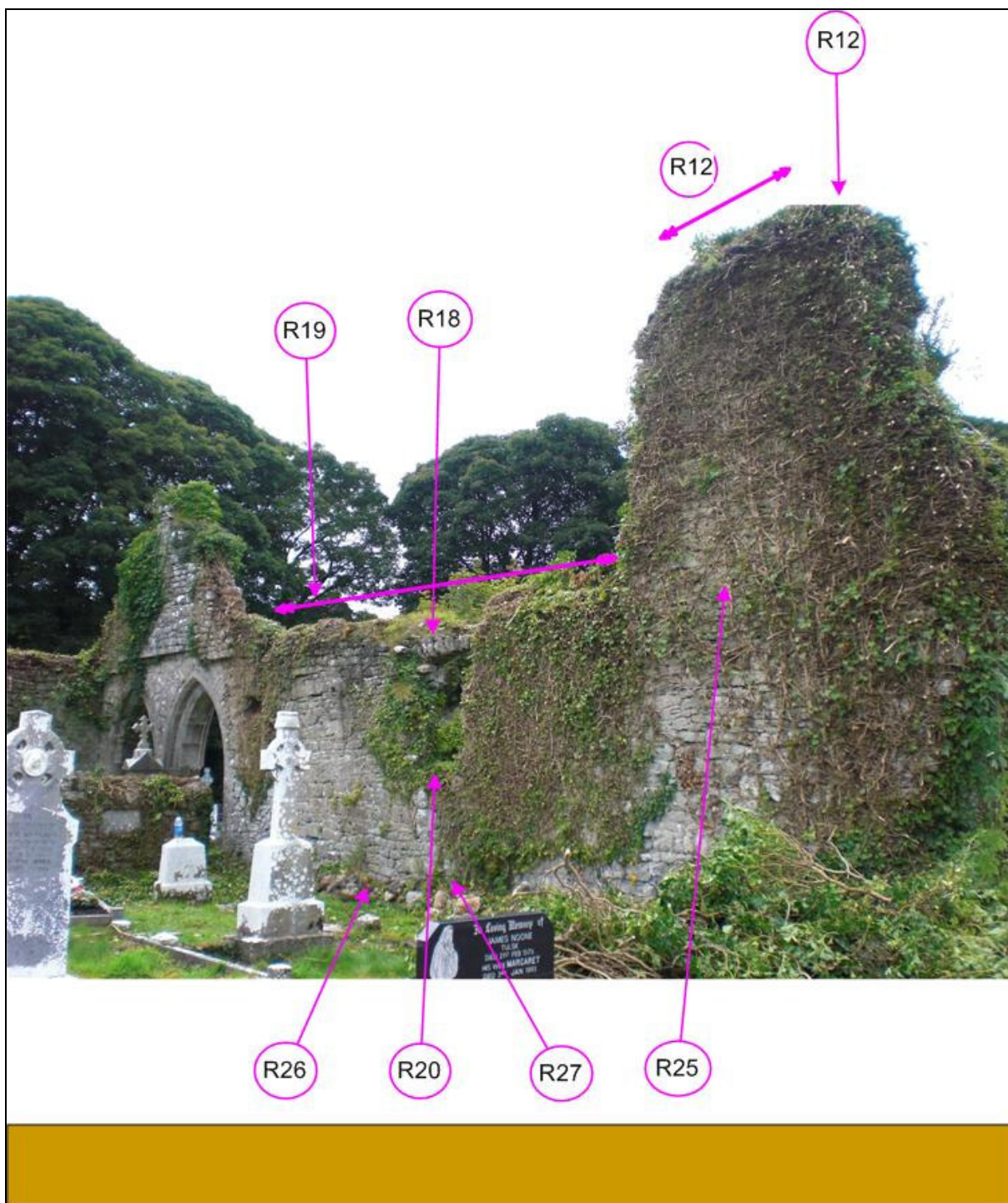


Plate A4: Nave, South Wall

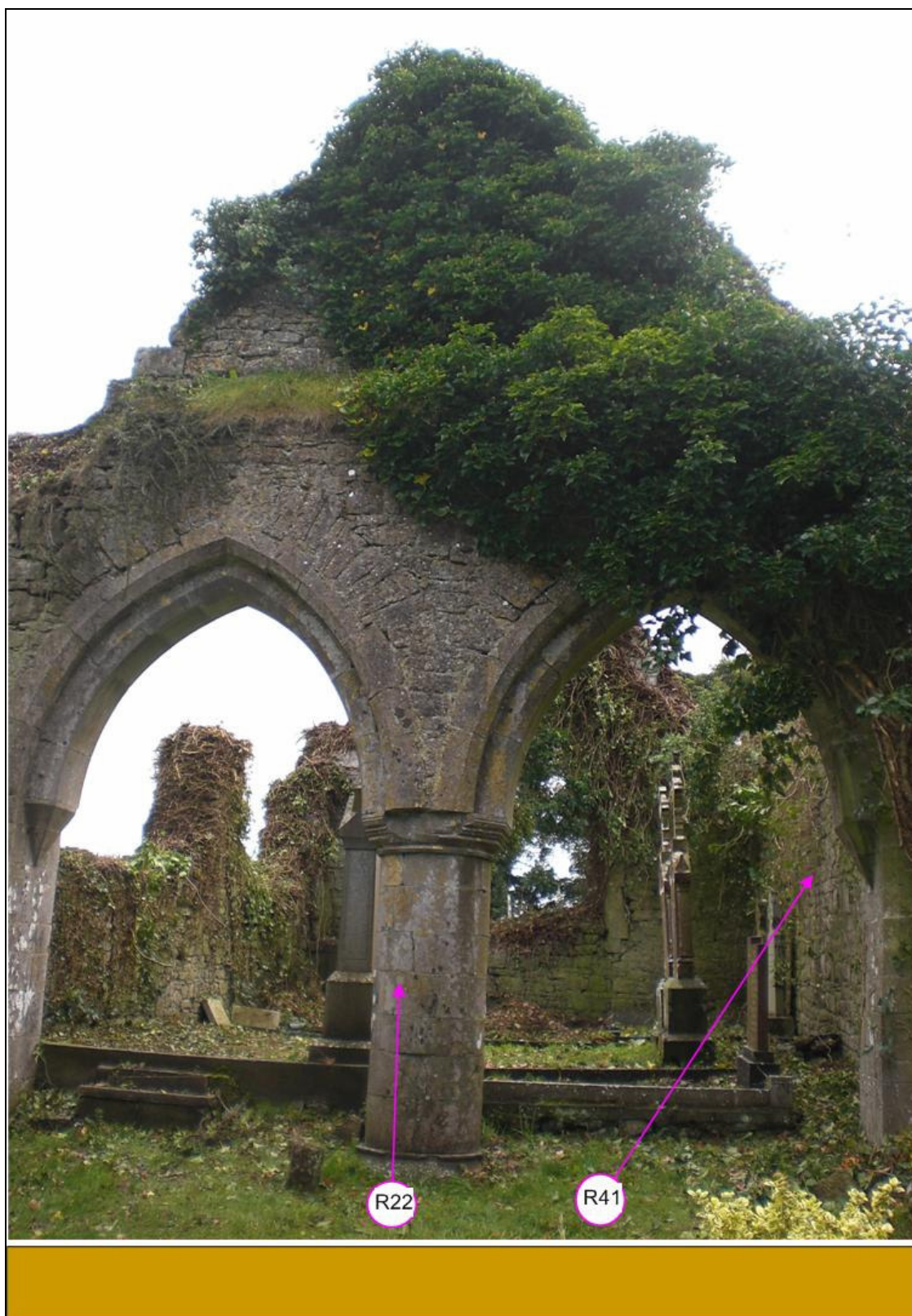


Plate A5: Nave South Wall



Plate A6: Nave South Wall, North Elevation



Plate A7: Nave South Wall/Transept North Gable Wall

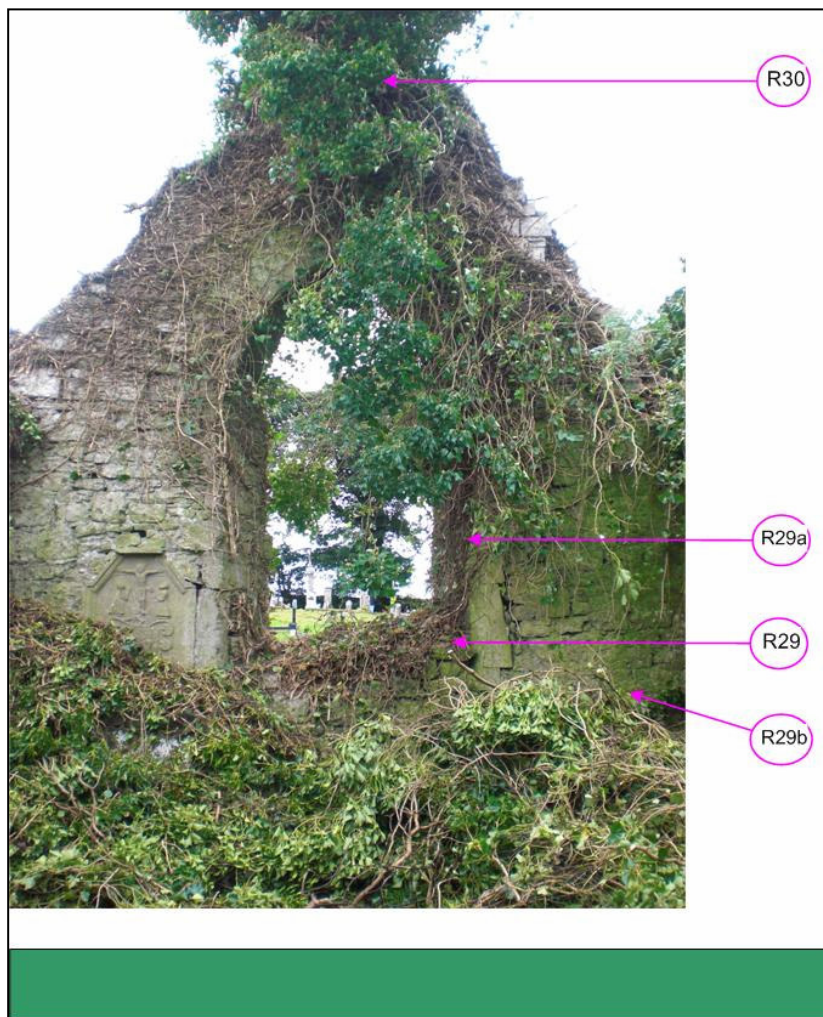


Plate A8: Transept South Gable Wall, North Elevation

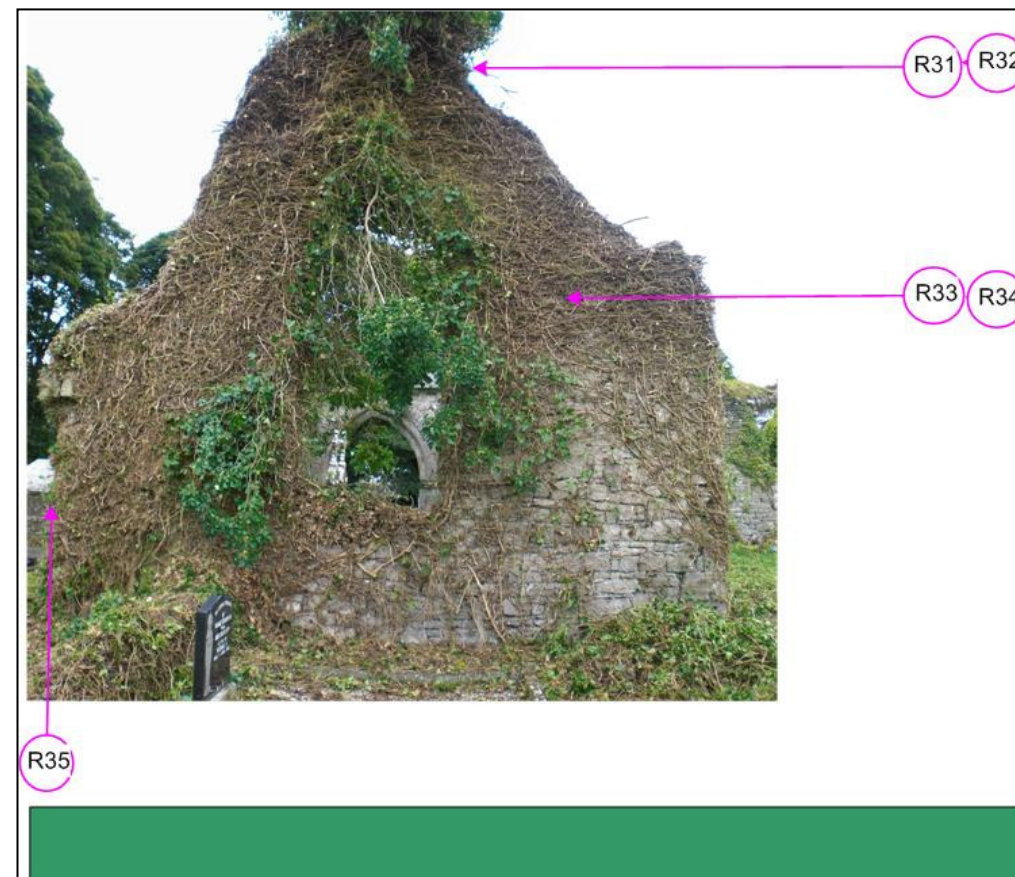


Plate A9: Transept South Gable Wall, South Elevation

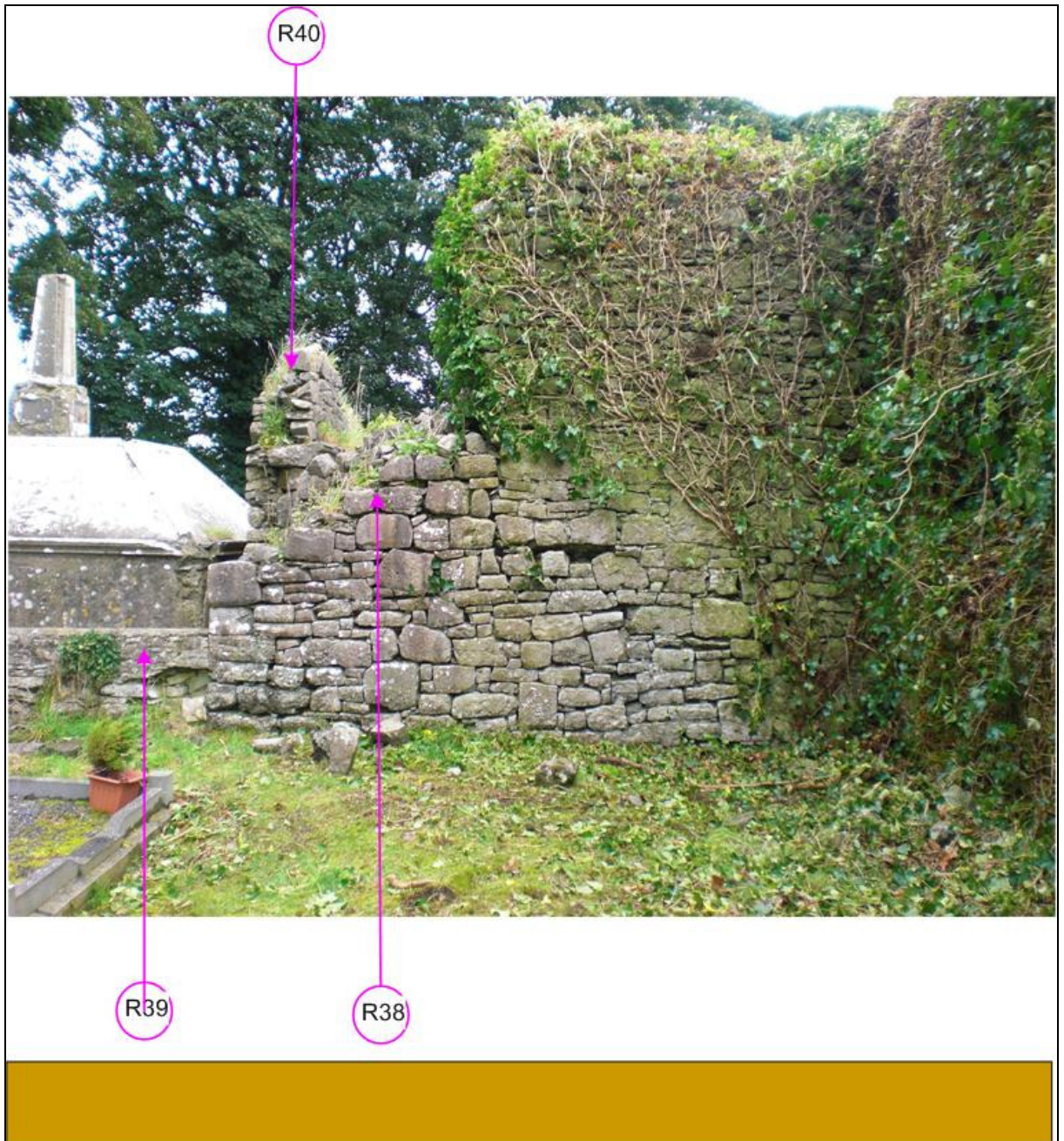


Plate A10: Nave, South-West Corner

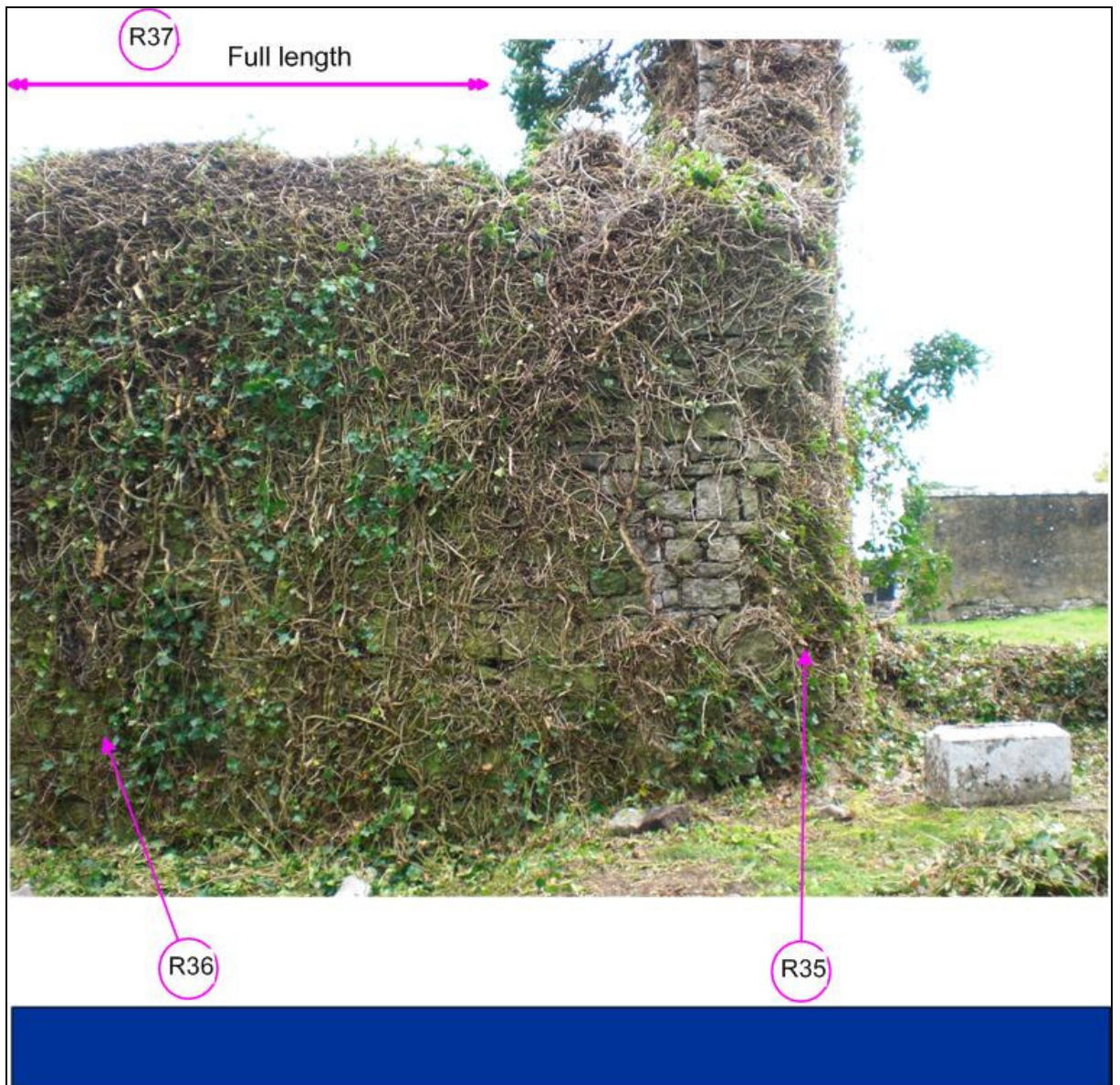


Plate A11: Transept West Wall, West Elevation



Plate A12: Transept East Wall

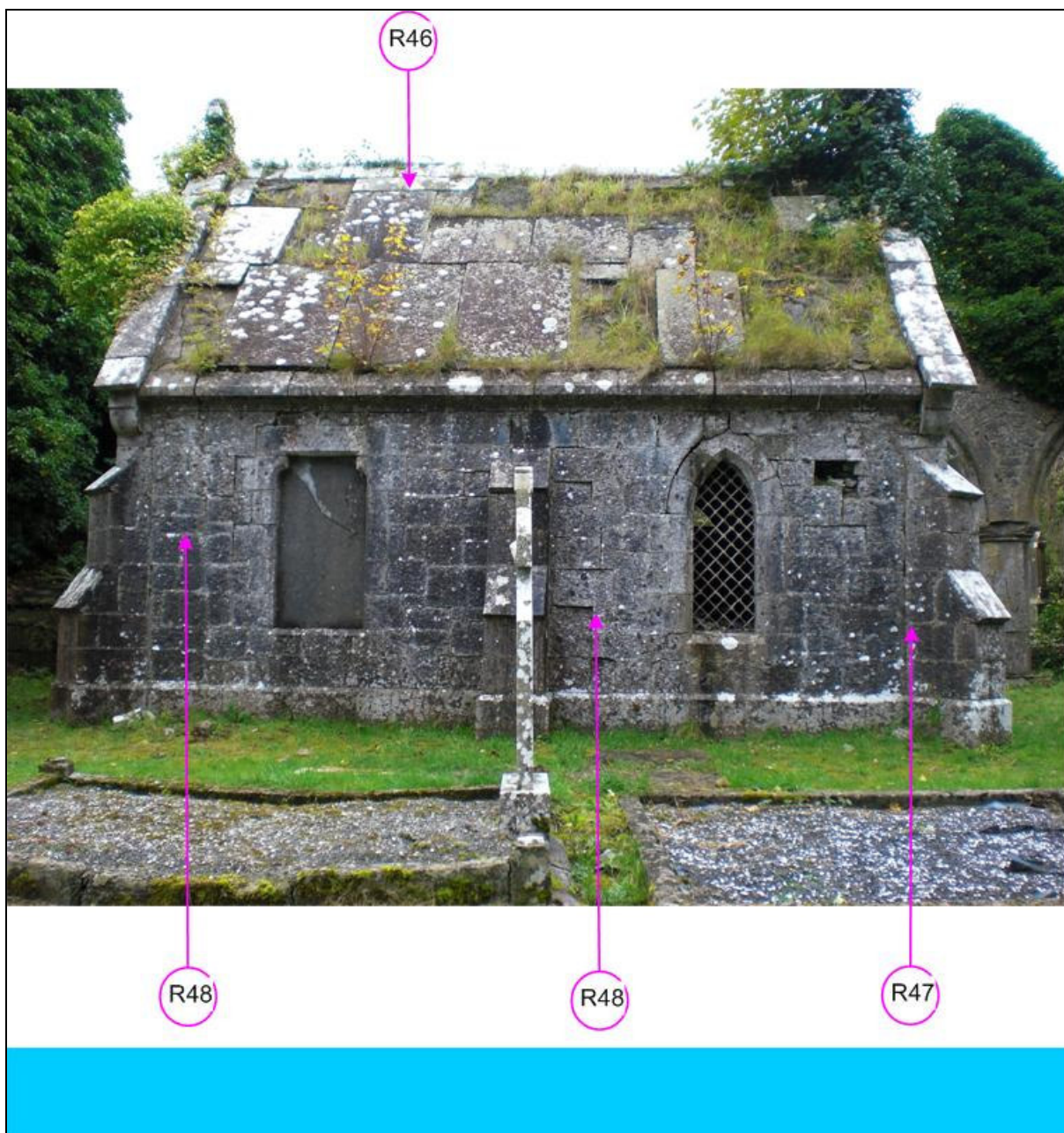


Plate A13: Grace Mausoleum

APPENDIX 2 SUMMARY OF ECOLOGY MANAGEMENT MEASURES

To be used only in conjunction with the actions recommended in Section 6 of Volume 1.

Item	Detail	Timeframe for Implementation	Comment
Detailed bat survey	Full bat survey by qualified specialist of any parts of the buildings at Tusk which will undergo maintenance or conservation works.	Before any maintenance / conservation works take place.	Includes further ivy removal.
Planting for bats	Planting of shrubs and herbs of benefit to bats	Spring summer months, at any stage.	For example, buddleia and marjoram.
Tree-planting	Planting of native tree-species under study. Must include ash. Other tree species could be oak and alder.	Winter months, at any stage.	Only to be undertaken if it does not conflict with archaeology. Should include trees to protect riverbank. May involve removal of existing non-native trees.
'Wildlife-friendly' grassland management regime	The least used parts of the site are to be mown / trimmed once per year, the less used parts twice per year and the most used parts three times per year.	May be implemented from the beginning of the summer. Last cut for all three areas should be in September.	Cuttings should be left <i>in situ</i> for a few days and shaken before removal.
Dedicated wildflower area	Area devoted to wildflowers and other wild plants. May be of any size and contain a very wide range of species. Those species suitable for dry calcareous areas include lady's bedstraw, chamomile, cowslip, black medick and knapweed.	March – June and/or August –September.	May appear untidy to some users of the site.
Bat and bird box installation	Bat and bird boxes may be erected at suitable locations. At the priory, these should be placed on existing mature trees, and on Cruachan Aí.	May be undertaken at any stage. However, should be undertaken as part of overall plan which includes dates for checking bat boxes and cleaning bird nesting boxes.	Planning and erecting of bat boxes should be carried out by a qualified specialist.
Composting area	A composting site should be constructed at the priory for dead flowers and	May be constructed / used at any stage	Should be wisely located for ease of maintenance. Users of

	other organic waste. May be a simple composter or a purpose-built area and may incorporate area for other waste.		the graveyard should be well-informed as to its purpose and use.
Interpretative signage	Interpretation through purpose-designed signage is recommended. Self-guiding information leaflets should be produced concurrently.		Should include information on wild species, management plan and techniques.
Protection of Tobernakirky and the Ogulla River	It is recommended that measures be taken to protect these freshwater habitats from any harm which may result as a result of pressure from grazing animals or increased human use of site	Measures will be long-term and it is therefore suggested that plans for fencing, paths, boardwalk <i>etc</i> be subject to detailed scrutiny by as many interested parties as possible before implementation.	Interim measures for river protection such as temporary bankside fencing may be considered.
Conservation of wall adjacent to Cruachan Aí	The remnant wall on the south-west side of the Tusk Earthwork site is valuable as plant habitat and should be maintained.	At earliest stage possible.	May be a useful site for interpretation (<i>e.g.</i> on building techniques and plant habitats).

APPENDIX 3 BAT EVALUATION OF TULSK PRIORY

Prepared by Brian Keeley B.Sc. (Hons) in Zool. MIEEM for Gifford



Plate A14: Bat roosting in the Grace Mausoleum

Introduction

Bats avail of buildings for a number of different purposes, including daytime roosting to avoid predation, sunlight, rain and cold. Such daytime roosts may serve a function or specific role during the year and may allow bats to congregate to breed and bear their single annual young, provide a mating site, a winter hibernation site or a resting place for bats not engaged in any of the above activities but requiring a shelter.

Old buildings are suitable as roost sites because they usually are easily accessible to bats, may be little disturbed during the day, may have old stonework and timbers with suitable crevices and may be in areas with well established vegetation.

Old ruins of abbeys, priories, castles and churches all offer ideal conditions, especially if close to water and mature vegetation.

All Irish bat species avail of buildings and all species have been found in religious sites (churches, abbeys, graveyards) and it could be expected that a number of the resident species for Roscommon could occupy the site occasionally and over short or longer periods, depending upon the species concerned. Some species such as Leisler's bat may only roost for a number of days while species such as brown long-eared bat may be resident for several months within the same building.

This assessment was carried out Tusk Priory, Co. Roscommon, as requested by Flynn Furney for Gifford. Due to the time of year (October 20th 2008), a night-time bat detector assessment was not

carried out. The weather conditions leading up to this assessment including heavy rain, strong winds and low temperatures would have rendered such an assessment of little advantage.

Tulsk Priory

There are mature sycamore trees skirting the cemetery and lying close to the Ogulla River. The priory is in a state of semi-collapse and the stonework has a number of cavities that would provide roosting opportunities for bats. In many places, the stonework is also covered in mature ivy that would provide more roosting opportunities as well as obscure roosting cavities within the stonework.

The mature sycamore trees do not offer obvious roosting opportunities but this can be difficult to ascertain without an assessment when bats are active or from checking all trees from a higher viewpoint (e.g. hoist, teleporter, climbing the tree).

The trees would offer good shelter to encourage feeding and commuting activity along the cemetery edge. The graveyard lies adjacent to the Ogulla River, and this would be a source of insect prey along its course. It would also be availed of by bats to move from one feeding site to another and also between roosts.

The sites on the opposite side of the road are of low interest to bats. Towards the Cruachan Aí centre and behind it, there is shelter from cross-winds as well as free-standing mature beech trees and these would be of benefit to feeding bats. The exposed site would be of benefit to Leisler's bats but it is difficult to see it as of major interest to other bat species due to the exposed nature of the site.

Bat evidence at Tulsk Priory

The Grace Mausoleum offers a number of roost options for bats and this includes gaps within the stonework as well as the internal area itself. As the building was locked, it is possible that greater evidence of bat usage is available within. A hibernating brown long-eared bat was noted within the blocked up window on the outside wall of the crypt. This bat did not become active despite a high level of disturbance during this assessment (from a head torch and flash photography). The bat was clearly in a near-hibernatory state and it may remain inactive like this for days or weeks if undisturbed. In the accompanying photographs, it is apparent that the bat has responded to disturbance but has not become active.

The site would provide good roosting opportunities for bats such as brown long-eared bat, Natterer's bat, pipistrelles and possibly Daubenton's bats.

Evaluation of the site

There are considerable numbers of crevices and cavities in stonework and ivy cover (Plate A15). There are holes within the arches, chimneys and in window and door frames.



Plate A15: Roosting potential and bat evidence at Tusk Priory.
The four upper photographs indicate roost potential within the graveyard, while the bottom two photographs indicate the actual roost site of a torpid brown long-eared bat.



Plate A16: Brown long-eared bat in a window frame of the Grace Mausoleum.
The upper picture shows the bat from side-on, while the lower picture shows the nose and thumbs of the roosting bat from below.



Plate A17: Roost opportunities in ivy, stonework and chimneys within Tulsk Priory

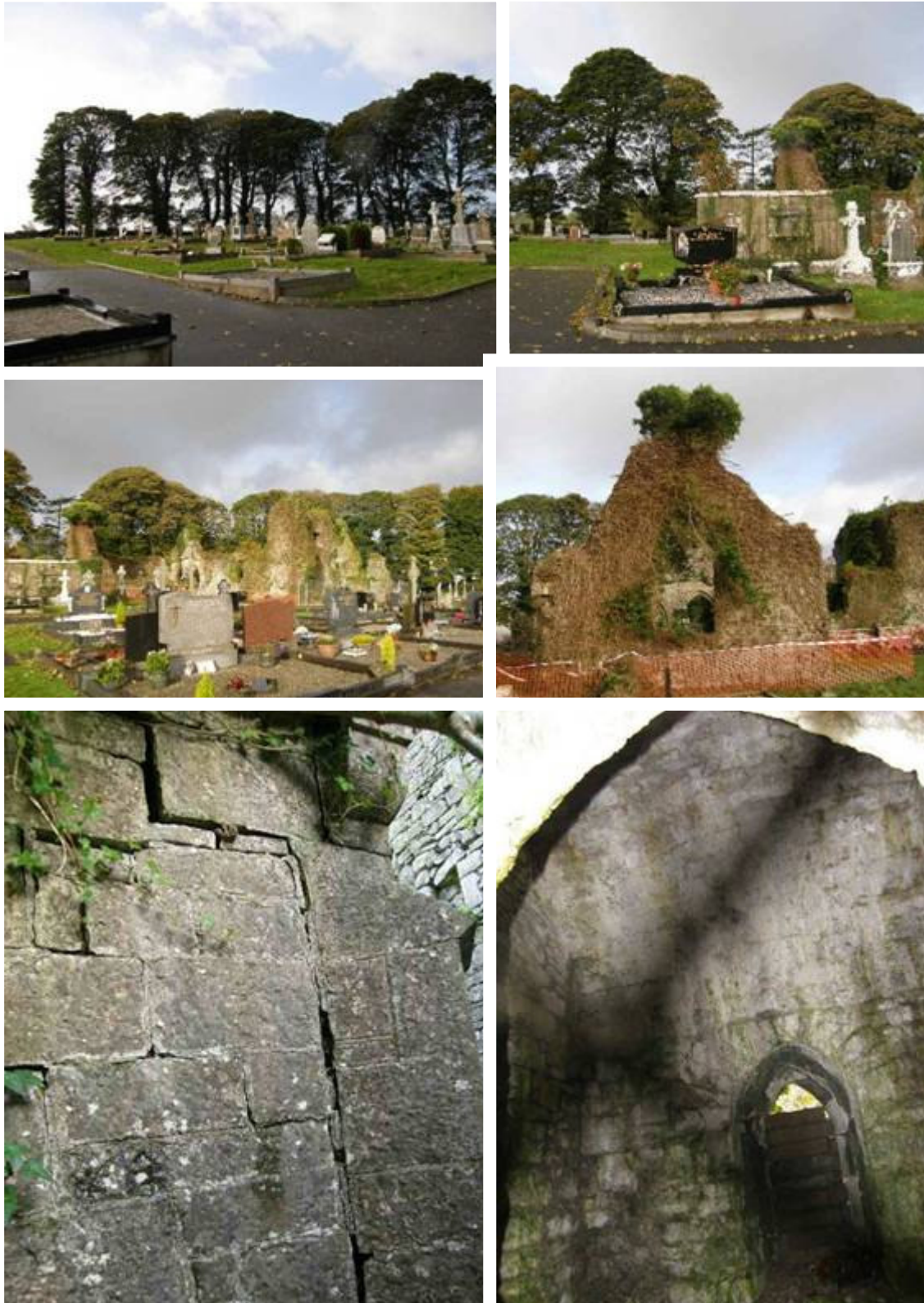


Plate A18: Tree cover behind Tusk Priory and major roost opportunities in stonework



Plate A19: Cruachan Ai, Tulsk Earthwork and Tulsk Priory

- Top: Panorama showing high exposure and little vegetation cover
 Middle: Tree cover behind the graveyard close to a watercourse
 Bottom: Watercourse and bridge under N5 leading towards mature beech trees

Recommendations

All Irish bats are protected by national and international legislation (Wildlife Act (1976) and Wildlife (Amendment) Act (2000), S.I. No. 94 of 1997 ("Habitats" Directive), S.I. No. 378 of 2005 implementing the EU Habitats Directive and further amending the implementation of the Wildlife Act, Bonn Convention (The Convention on the Conservation of Migratory Species of Wild Animal), Eurobats and the Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats).

It is an offence to capture, injure or kill a bat, to destroy its roosting or resting place or to interfere with access to such a site. The most significant roost sites are typically summer maternity sites or winter hibernation sites. The Irish bat species with the highest protection is the lesser horseshoe bat, identified by the author in Boyle, Co. Roscommon and in no other part of the county to date.

Application for a licence to derogate from bat roost protection

It will be necessary to apply for a licence to undertake any work that would interfere with the roosting place of a bat, in this case the brown long-eared bat in the window of the small chapel. The licence should be sought from NPWS. Licence turnaround on approval is an absolute minimum of 2-3 weeks and should be factored into all planning for repairs.

Restriction on lighting

Lighting has a questionable role in conservation and ecology as it tends to concentrate photophilic (light-loving) insects and provide opportunities for the most opportunistic bat species at the cost of light intolerant bat species. Hence, species such as brown long-eared bat may be disrupted in their ability to enter and exit the roost site if the buildings were illuminated.

Bats may either avoid lit cavities or may be delayed in their emergence by as much as 30 minutes. This would lead to a significant loss of feeding time which would be critical in the summer period.

Examination of all stonework prior to re-pointing, roofing and glazing

There is clearly a possibility of bats roosting within various walls within the graveyard area and also at Cruachan Aí. All structures within Tusk Priory are a potential roost for bats while the Grace Mausoleum is an actual proven roost. All of the walls which are noted to have a crevice or cavity and especially towards the top of walls that are exposed to the heat of the sun (open to southern exposure in particular) should be examined for evidence of bats either from droppings or actual bats.

Any survey of the site prior to any maintenance work *must* be undertaken by a bat specialist as it is an offence to injure a bat or destroy its roost or access to its roost.

"Bat friendly" timber treatment and timing of application

It is recommended that tanalised wood should be used in preference to *in situ* timber treatment. Pre-treated timber is also preferable to the use of sprays within the buildings. Timber treatment, only where it is considered vital to the survival of joists, should avoid the following chemicals:

Insecticides

Lindane γ -HCH Dieldrin
 γ -BHC

Fungicides

Pentachlorophenol (PCP), Pentachlorophenol laurate (PCPL), Tributyltin oxide (TBTO)

Products with the following active ingredients are considerably safer for mammals (including humans);

Permethrin, Cypermethrin	Insecticide
Borester 7 or Polybor, Boric acid, Disodium octoborate	Insecticide+Fungicide
Copper naphthenate, Zinc octoate, Acypetacs zinc	Fungicide

British products typically contain information relating to bat roosts and their suitability for use therein upon the tin.

Most critically, the months of June and July must be avoided, as this is the main period for the birth of young. Young bats are incapable of flight in the early weeks, and would be unable to escape the spraying procedure. Where it can be confirmed by a bat specialist that bats are categorically absent, it would be possible to carry out work in advance of the end of August.

Planting of vegetation attractive to invertebrates

It would be beneficial to bats and insectivorous birds if there were greater opportunities for insects and other invertebrates to breed and feed within the graveyard site. Planting insect-sustaining plants may assist in adapting the built landscape by means of the creation of new feeding opportunities and compensate for the feeding losses within the buildings. Bats prey on invertebrates (in particular flying insects) and these may be enhanced in diversity and abundance by planting suitable food plants and substrates for shelter and breeding.

Plants that are especially attractive to insects should also be incorporated into any planting regime. This could include plants such as: Honeysuckle (*Lonicera periclymenum*), *Clematis*, *Hebe* and night-scented stock (*Matthiola bicornis*), *Buddleja davidii* (etc.). Other species such as dogrose (*Rosa canina*) and scented herbs such as chive, borage, lemon balm, marjoram and mint all provide feeding for night (and daytime) insects.

APPENDIX 4 EXAMPLES OF QUINQUENNIAL SURVEYS OR INSPECTIONS

Quinquennial Property Checklist

While it is not necessarily appropriate for all situations, the future monitoring of a building is usually made much easier by establishing such a list at the beginning of an inspection cycle and then sticking to it.

It is hoped that this checklist will enable those who are not professionally qualified to understand what is needed, and for a qualified surveyor to gain some idea of the required scope of the work and to give an order of priorities arising from the inspection.

1. PREMISES IDENTIFICATION

Please give the name and address of the property at the beginning of your report. Please refer to the previous quinquennial inspection report. It is helpful if an Ordnance Survey extract, site plans, simple floor plans and, if available, current photographs could be usefully incorporated to provide records. The particulars in Sections 2 and 3 need not be given if previously noted in earlier reports.

2. PARTICULARS OF SITE

- a: give basic dimensions (frontage, depth);
- b: state nature of pedestrian access;
- c: what vehicular access is there?;
- d: what parking facilities are available?;
- e: can the disabled access easily?;
- f: is there any spare land?;
- g: is there a burial ground and is it open or closed?

3. PARTICULARS OF PREMISES

- a: full address;
- b: age of building(s);
- c: brief description, design and construction;
- d: size/approximate dimensions;
- e: number of storeys;
- f: accommodation, dimensions, approx. floor area;
- g: access and facilities for the disabled;
- h: any special features (architectural);
- i: is the building listed – what grade?;
- j: is the building in a Conservation Area?;
- k: address/telephone of Conservation Officer.

4. REPAIR WORKS OR NEW WORKS SINCE LAST INSPECTION

- a: date of last inspection;
- b: who undertook last inspection?;
- c: what works have been recorded in the log book;
- d: have all repairs required by previous reports been completed – if not what work is still outstanding?;
- e: have there been any alterations (internal or external) since the last inspection?

5. GENERAL CONDITION OF THE BUILDING(S)

Give a summary of the general condition of the building(s), to include comments on:

- a: the general soundness and suitability;
- b: any deterioration (in relation to age);
- c: the adequacy of maintenance and repair;
- d: a list of the main defects.

6. DETAILED CONDITION OF THE SEVERAL PARTS OF THE BUILDING

Separate detailed reports of the various buildings may be preferable.

6.1 General structure, internal and external

- a: do the main walls *etc* show signs of movement or structural failure?;
- b: are there any cracks, fractures, weakening or possible instability?;
- c: are there any indications of settlement or foundation problems?;
- d: are there any areas of dampness? Is there a damp-proof course? Is the external ground-level at least 150mm below damp-proof course level?;
- e: are there any external signs of defects in structural timber?;
- f: is there any damage due to vandalism, theft or fire *etc*?

6.2 External fabric, external wall surfaces

- a: are air bricks clear and is there adequate ventilation for hollow floors?;
- b: what are the external walling materials and what is the general surface conditions?;
- c: is there any frost damage?;
- d: are there cracks or other damage to sills, lintels and other features?;
- e: is any re-pointing or other remedial work necessary to external surfaces?;
- f: is there any harmful vegetation which should be removed?;
- g: what is the condition of basement walls (if any)?

6.3 Roof coverings

- a: what is the material construction and general condition of any pitched roof? Are there any slipped, cracked or missing tiles/slates? What is the condition of the ridge? Are there any ridge ventilators, or other features, and do they need attention?;
- b: what is the material, construction and general condition of any flat roof? Are there any cracks, splits, bulges in flat roofing surfaces?;
- c: are all flashings sound and suitable? Is any making-good necessary?;
- d: what is the condition of parapets, copings and other roof features?

6.4 Rainwater disposal system

- a: are all gutters clear of silt, debris and vegetation?;
- b: what is the condition of internal valley gutters and parapet gutters and are there any indications of leaks?;
- c: what is the condition of any external guttering and are there any indications of leaks?;
- d: what is the condition of any hopper heads and rainwater downpipes? Are there any splits, cracks, broken joints?;
- e: do the gutters and downpipes satisfactorily carry water away? Are they of adequate size and to a satisfactory fall? Are there any signs of overflowing?;

- f: do rainwater pipes properly discharge into gullies and underground drainage pipes? Is there access for clearing out?;
- g: is water properly carried away from the building or is it allowed to saturate the base of the walls?;
- h: are paved areas properly drained away from the building?;
- i: is surface water drained to soak away or to a surface water sewer? Is the system in good order?

6.5 External doors and windows

- a: are there any porches, canopies *etc*, and what is their condition?;
- b: what is the condition of any external doors, door frames, surrounds *etc*?;
- c: what is the condition of any window surrounds, frames, sills, window guards *etc*?

6.6 External metalwork, woodwork and paintwork

- a: what metalwork items are there, and what is their condition? Is any treatment necessary for rust or corrosion?;
- b: what woodwork is there and what is its condition? Are there any signs of rot or other defects? What remedial work is necessary?;
- c: what items have a painted finish and what is their condition?

6.7 Internal fabric, roof structures

- a: which areas of the roof space are accessible and which are not?;
- b: in any loft which can be inspected, what is the general construction and condition of the main roof trusses, beams and purlins, rafters and joists? Are there any bows, sags, open joints or other indication of structural defect in the roof timber?;
- c: is the ceiling sound and adequately supported?;
- d: are there any signs of rot, or attack by insects?;
- e: are there any signs of water penetration into the roof?;
- f: what is the condition of any pipes, cables, conduits, ducts *etc* in the roof space?;
- g: is the roof insulated? If so what is the thickness of the insulation?;
- h: is there adequate ventilation of the roof void or void between a suspended ceiling and main ceiling?

6.8 Internal partitions, ceiling, walls and doors

- a: what is the condition of internal structural and non-structural walls, partitions, screens panelling *etc*?;
- b: is there any timber decay, cracking or dampness, and how do these relate to external observations?;
- c: what is the condition of ceiling finishes, covering, friezes *etc*?;
- d: what is the condition of internal doors, and is any remedial work necessary?;
- e: is all ironmongery working satisfactorily?

6.9 Internal decorations

- a: what is the general condition of the paintwork or other finishes on walls, ceiling and woodwork?

6.10 Glazing and ventilation

- a: are there any special windows and what is their condition?;
- b: is there any double glazing? Are there any known draught problems?;
- c: what is the general glazing and what is its condition?;
- d: is there sufficient ventilation?;

- e: do opening lights operate satisfactorily?;
- f: are there any broken or cracked panes to be repaired?

6.11 Floors and balconies

- a: what is the general construction/finish of solid floors, and are there any signs of structural defects?;
- b: what is the general construction/finish of hollow or suspended floors, and are these showing any signs of structural defect?;
- c: is there any access to voids below hollow floors? If so, was the void inspected?;
- d: are there any signs of rot or insect attack in timber floors? If so, was the void inspected?;
- e: what is the condition of floor coverings/surface finishes?;
- f: what is the condition of ducts/gratings *etc*?;
- g: what is the condition of any staging, platform, dais *etc*?;
- h: what is the condition of any balcony floor and balustrade?;
- i: what is the condition of any stairs or steps?

6.12 Fixtures and fittings

- a: what is the condition of the various fittings-benches, seats, tables, clocks and other loose furnishings?;
- b: what is the physical condition of musical instruments *etc*?

6.13 Services-heating system

- a: what type of heating is installed?;
- b: what type of boiler (if any) is installed? What fuel is used? How old is the boiler?;
- c: what is the general condition of the boiler, pumps and other boiler house equipment? Type of control system? Is it satisfactorily?;
- d: is there a maintenance agreement in operation? What does it cover?;
- e: are there any possible hazards in the system?;
- f: is there a cold water storage tank or other equipment at high level? Are tanks and pipes insulated?;
- g: if the premises are supplied with gas – and are rented or warden occupied – then an annual inspection and certification by a registered installer is a legal requirement.

6.14 Electrical Installation

Has a recent test of the electrical installation and equipment been carried out by an approved contractor? If not, then such a test should be undertaken which will list any defects – these defects will have to be put right before a certificate can be obtained to satisfy the regulations.

6.15 Sanitary Facilities

- a: what toilet provisions are there in the building for men, women, children and the disabled? Comment on adequacy, condition and hygiene aspects.;
- b: are the toilets adequately lit, ventilated and heated or protected against frost?;
- c: are there adequate kitchen facilities? What is their condition?;
- d: what is the condition of the cold water supply and is the main stopcock accessible?;
- e: is there a hot water system or other provision for hot water and what is its condition?;
- f: are all sanitary fittings properly plumbed in? Are there any broken pipes, leaking joints, dripping taps or overflows?;
- g: are all sanitary facilities properly connected to a foul drainage system? Is the outfall to a foul sewer, septic tank or cesspool? Are manholes clear and are covers in good condition? Comment on the adequacy and condition of the foul drainage installation.

6.16 Fire Regulations

- a: is there an alarm or smoke detector system and is it in proper working order? The system should be tested regularly.;
- b: fire regulations are a subject matter which has substantially changed in recent times. Advice on current provisions can be obtained from the enforcing authority for fire safety.

6.17 Security

- a: can the building be adequately secured, without impairing the possibility of emergency exit at all times?;
- b: have there been problems from vandalism and/or theft and what action might usefully be taken?;
- c: are any parts of the building specially protected, and are there other protections that might be considered?

6.18 Exterior external areas

- a: are there any outbuildings and what is their condition?;
- b: what is the condition of boundary walls, fences and gates? Are boundaries properly defined and maintained?;
- c: 'Adverse easements' Have you knowledge of any cables, pipelines or drains *etc* which serve other properties and run over or under the property?;
- d: are there any rights of way over the property serving other land owners?;
- e: are there any windows from other properties adjacent to the boundaries?;
- f: what is the condition of grassed or planted areas?;
- g: are any tree/shrubs overgrown or hazardous to buildings?;
- h: are paths, paving and steps in good condition?;

APPENDIX 5 STRUCTURAL REPAIR DETAILS AND MORTAR SPECIFICATION

Specification for Lime Mortar and repointing

1.1 Lime

- 1.1.1 **Natural Hydraulic Lime:** Natural Hydraulic lime to the European standard EN-459-1 Building Lime.
- 1.1.2 The lime shall be EN 459-1 NHL3.5-Z and EN 459-1 NHL3.5-Z
- 1.1.3 The Contractor is to retain a 0.2mm mesh (200 micron) sieve on site at all times to enable fineness of the dry hydrate to be checked by sampling before use.
- 1.1.4 The lime supplier is to provide chemical analysis and mortar crushing strength test results using the dry hydrate currently produced on request.

1.2 Sand

- 1.2.1 The sand shall comply with BS 1200, Building Sands from Natural Sources. It shall be well graded, clean, sharp and coarse.
- 1.2.2 For repointing and repairing cracks in the ashlar, the sand shall be of the correct colour and texture so that when dry, the new mortar will match the original colour and texture of the original or existing mortar and a sample approved by the Conservation Officer.
- 1.2.3 The aggregate size is to be well graded to match as closely as possible the existing approved mortar sample and to be appropriate to the width of the joint. The grading shall be in accordance with Type S in BS 1200 with sufficient coarse sharp particles. When dry sand is rubbed between the fingers it should make a rasping sound and feel sharp and gritty.
- 1.2.4 The maximum particle size shall be no more than half of the width of the joint and no less than a third of the joint width. Where sand greater than 5mm is being used the proportion should be less than 10%.
- 1.2.5 The sand is to be well washed and shall not include clay, silt, organic matter, iron pyrites, salts, coal, or flakey and elongated particles or excessive fines.

1.3 Other Materials

- 1.3.1 **Water** shall be obtained from the mains and be potable and comply with requirements of BS3148. It shall be clean and fresh, free from matter in quantities that would adversely affect the properties of the mortar.
- 1.3.2 **Pozzolanic Material:** not permitted.
- 1.3.3 **Additives:** No additives (pigments, plasticisers and the like) of any sort shall be included in the mortar unless, in special circumstances, these are approved.

- 1.3.4 **Ready Mixed Lime:sand for mortar:** shall not to be used unless expressly approved by the Conservation Officer.

1.4 Transport/Handling of Material

- 1.4.1 Sand shall be stored in clearly marked containers and protected from inclement weather, deleterious materials and debris.
- 1.4.2 Hydraulic lime should be supplied in bags marked with the date of manufacture. Hydraulic lime over 3 months old must not be used. All bags must be delivered to site undamaged and dry without moisture penetration of the covering. Dry hydrate that has been exposed to the air or moisture in transit and in damaged bags is to be rejected.
- 1.4.3 Hydraulic lime must be stored in a dry store building on a raised floor. Each bag should be dated and each delivery kept separate. No materials may be stored on the ground. Do not store bagged lime on site for more than six weeks and once opened the lime in a bag should be used the same day.

1.5 Samples

- 1.5.1 A reasonable number of sample mortar mixes shall be prepared as agreed on site for inspection by the Conservation Officer until a mix is approved. The location of the sample panels will be agreed with the Conservation Architect who will identify any areas of existing mortar to be matched.
- 1.5.2 The Contractor is to allow for blending and sieving sands from different sources, as necessary, to achieve appropriate grading, colour and texture.
- 1.5.3 A trial area (1m²) of pointing is to be executed for approval by the Conservation Officer using mortar as specified and approved.
- 1.5.4 The Contractor shall prepare a sample panel of repointed wall, executed in the, mortar mixes and pointing techniques to match existing work.

1.6 Mortar Types and Mix

- 1.6.1 **Mortar Mix:** The Contractor shall prepare aggregate blended to the correct grading and/or coarse stuff only after the mix has been approved.
- 1.6.2 **The Mortar Class** shall be mortar designation (iv) or (iii) (compressive strength M2 or M4) to BS 5628 part 1.
- 1.6.3 **Materials** must be well mixed to obtain a uniform colour and consistency as specified elsewhere. The mix should be well dispersed with the minimum additional water.
- 1.6.4 **Natural Hydraulic Lime:Sand Mixes:** Mortar is to be prepared using natural hydraulic lime and well graded aggregate of the appropriate particle size to suit the joint width. The basic mix is:

**1 part by volume NHL3.5 lime:3 parts well graded sharp sand
for repointing and rebuilding walls**

1 part by volume NHL5lime:3 parts well graded sharp sand

for rebedding the top course of stones

- 1.6.5 All mixing and handling equipment is to be kept clean. Containers, boards, tools, etc. shall be well cleaned before the next batch of mortar is mixed/used.
- 1.6.6 Constituents should be measured by volume in clean gauge boxes, gauging by shovel is not allowed.
- 1.6.7 Hydraulic lime should be mixed with damp sand until well dispersed. Then water must be added gradually and kept to the minimum. If additional workability is required the mixing time should be lengthened, not by adding water. A mechanical paddle mixer may be used; however, a tilting drum mixer must not be used
- 1.6.8 Natural hydraulic limes may be reworked but if the mix requires significant added water it should be rejected.
- 1.6.9 Mortar should be used within two hours of being mixed.

1.7 Preparation for Pointing

- 1.7.1 Stone joints that are to be repointed shall be repaired in the following way: Use hand tools only, rake out all loose jointing material to a depth of not less than twice the joint width or 20mm, whichever is the greater. Generally, the existing mortar should be capable of being removed by raking out by hand with a blunt instrument, without damaging the arises of the stone. A hammer and chisel should not be used unless permitted by the Conservation Officer. Under no circumstances should an angle grinder or similar tool be used.
- 1.7.2 Where mortar beyond this depth is friable or cavities are found seek instruction. All raking/cutting shall leave a clean, square face at the back of the joint, so as to provide optimum contact with the new mortar.
- 1.7.3 Clean out the joint using only water and a bristle brush, avoiding unnecessary saturation. All dust and loose material must be removed using a vacuum cleaner, working from top to bottom of the wall.
- 1.7.4 All cutting out and cleaning works should be approved prior to commencement of the repointing.
- 1.7.5 No cleaning agents or fungicides or chemicals are to be used either before or after repair works, except on the express authority of the lead consultant.
- 1.7.6 Where it is desirable to remove damaging and unsightly cementitious pointing, tests should be carried out to the approval of the Conservation Architect to ascertain the most appropriate method of removal and to limit damage caused to existing work.

1.8 Pointing

- 1.8.1 The mortar shall be a slightly softer and more porous than the stones themselves. Mortar shall comply with BS4551:1980 for mortars, screeds and plasters and BS4550:1989 part 3 sections 3.6 for methods of testing.

- 1.8.2 The masonry shall be thoroughly dampened when pointing starts. If the joints have dried out re-wet them with a hand-held spray prior to placing of any new mortar. No water should be left lying within the prepared joint.
- 1.8.3 The mortar should be pushed into the joint and firmly ironed in. Pointing irons, not pointing trowels, should be used with the maximum possible pressure and minimum of over-working.. The pointing irons may be cranked, bronze or steel flat of a width which will fit into the joint and ensure compaction over the full width and depth of the joint.
- 1.8.4 Repointing work should begin at the uppermost section of the wall and proceed downwards, ensuring that all the mortar is pressed well into the joints to achieve good compaction. Fill all the joints solidly with the approved mortar mix finishing very slightly back from the masonry and in accordance with the approved sample. Ensure no mortar encroaches on the face of the masonry.
- 1.8.5 After the initial set has taken place, gently brush joints in a stippling action with a natural bristle brush to remove laitance and excess fines and give a coarse texture finish. The bristles should not be dragged across the face but tapped against it.
- 1.8.6 Any particular joint finish that is required will be agreed on site by the Conservation Officer.
- 1.8.7 Where slight shrinkage cracks occur these must be cut out and remade.

1.9 Protection and Cleaning of Pointing

- 1.9.1 All new pointing shall be kept continuously moist for a minimum of 4 weeks (but not wet) to ensure that the set takes place slowly. Damping down is to be done repeatedly with a fine mist spray. A jet of water must not be used and water must not over flow down the face of the work when damping down.
- 1.9.2 Any mortar or stains caused by the works on the face of the masonry must be completely removed before the mortar hardens.
- 1.9.3 The Contractor shall establish the recommended curing periods from the suppliers of hydraulic lime and observe these with respect to loading and use after completion of laying.
- 1.9.4 Pointing is not to be laid when the temperature is 5°C or below and falling. Work may re-commence when the temperature is 3°C or above and rising. The bedding mortar for the new work should be constructed when the average ambient temperature exceeds 10°C. The Contractor is to keep a maximum and minimum thermometer on site for the duration of the contract to record night and day time temperatures as directed.

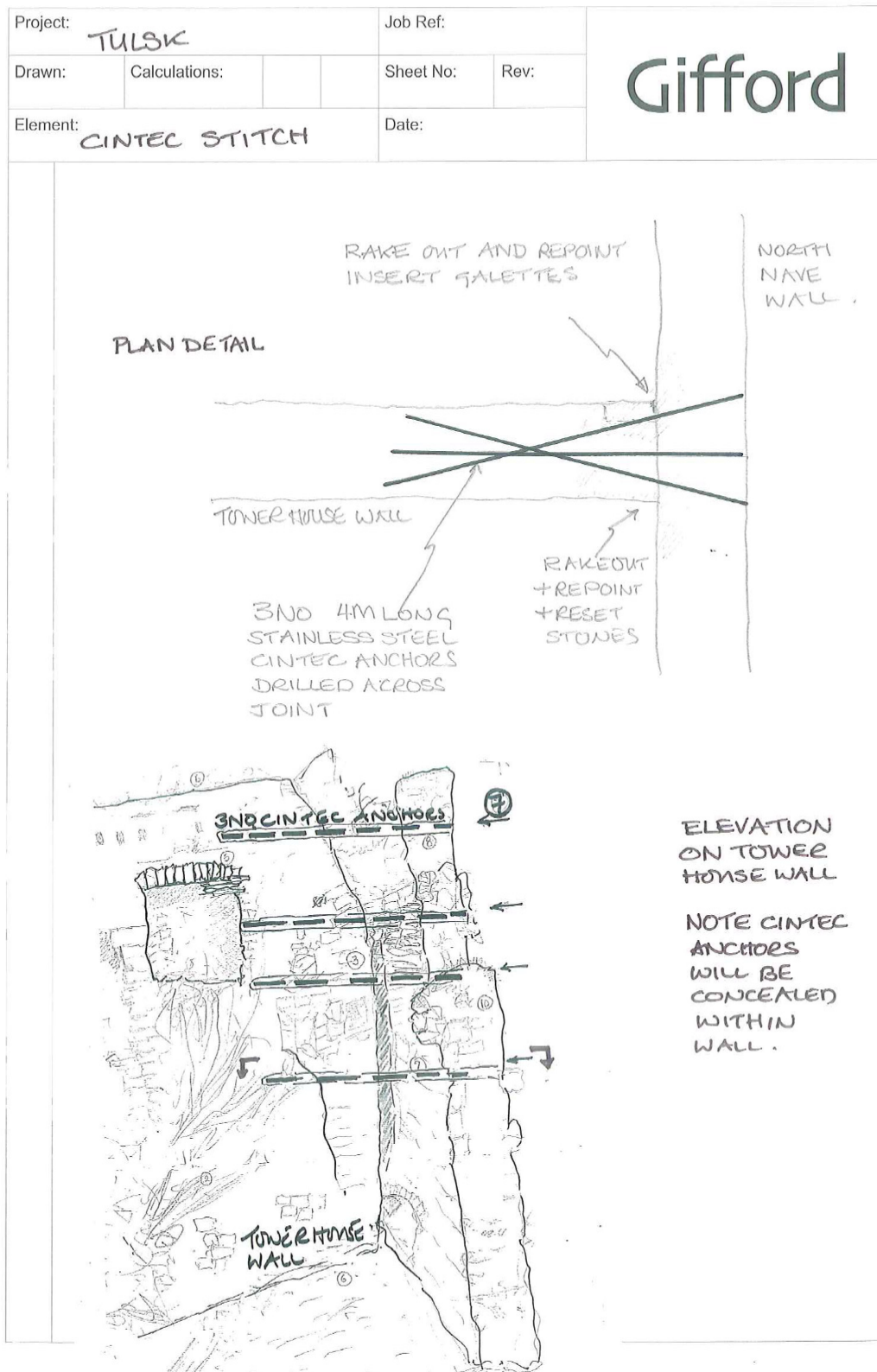


Figure A3: Detail of Cintec stitching

Project: TULSK				Job Ref:		Gifford
Drawn:	Calculations:		Sheet No:	Rev:		
Element: REPOINTING				Date:		

WHERE REPOINTING IS SPECIFIED RAKE OUT JOINTS, PREPARE AND REPOINT WITH 1:3 SAND TO NHL 3.5 LIME

MORTAR MIX AND SAND TO BE APPROVED BY CONSERVATION OFFICER, ON SITE SAMPLE OF POINTING TO BE PRESENTED

Figure A4: Repointing details

APPENDIX 6 LIST OF SPECIES RECORDED OR REFERRED TO IN THIS REPORT

Flora

Name	Common Name
<i>Acer pseudoplatanus</i>	Sycamore
<i>Aethusa cynapium</i>	Fool's parsley
<i>Agrostis capillaris</i>	Common bent
<i>Agrostis stolonifera</i>	Creeping bent
<i>Alnus glutinosa</i>	Alder
<i>Buddleia davidii</i>	Butterfly bush
<i>Cirsium</i> spp.	Thistles (Var.)
<i>Cotoneaster</i> Sp.	Cotoneaster
<i>Crataegus monogyna</i>	Hawthorn
<i>Crocsmia x crocosmiflora</i>	Montbretia
<i>Cynosurus cristatus</i>	Crested dog's tail
<i>Dactylis glomerata</i>	Cocksfoot
<i>Daucus carota</i>	Wild carrot
<i>Epilobium angustifolium</i>	Rosebay willowherb
<i>Fagus sylvatica</i>	Beech
<i>Fraxinus excelsior</i>	Ash
<i>Galium</i> spp	Cleavers
<i>Geranium robertianum</i>	Herb-robert
<i>Hedera helix</i>	Ivy
<i>Hypochaeris radicata</i>	Catsear (common)
<i>Iris pseudacorus</i>	Yellow iris
<i>Lapsana communis</i>	Nipplewort
<i>Ligustrum ovalifolium</i>	Privet (Garden)
<i>Nasturtium</i> sp.	Nasturtium (cultivated)
<i>Picea alba</i>	Silver fir
<i>Poa annua</i>	Annual meadow grass
<i>Pyracantha coccinea</i>	Pyracantha
<i>Ranunculus repens</i>	Buttercup (creeping)
<i>Rubus fruticosus</i>	Bramble
<i>Rumex</i> spp	Docks
<i>Salix</i> spp.	Willow
<i>Salix</i> spp.	Willow (var.)
<i>Sambucus nigra</i>	Elder
<i>Senecio jacobaea</i>	Ragwort
<i>Taraxacum</i> sp	Dandelion
<i>Taxus baccata</i>	Yew
<i>Trifolium repens</i>	Clover
<i>Umbilicus rupestris</i>	Wall pennywort or Navelwort
<i>Urtica dioica</i>	Nettle
<i>Veronica chamaedrys</i>	Germander speedwell
<i>Vicia sativa</i>	Common vetch
<i>Vicia sepium</i>	Bush vetch

Fauna: Avia

Name	Common Name
<i>Columba palumbus</i>	Wood pigeon

<i>Corvus corvus</i>	Grey crow
<i>Corvus frugilegus</i>	Rook
<i>Corvus monedula</i>	Jackdaw
<i>Corvus monedula</i>	Jackdaw
<i>Erithacus rubecula</i>	Robin
<i>Fringilla coelebs</i>	Chaffinch
<i>Parus caeruleus</i>	Blue tit
<i>Passer montanus</i>	Tree sparrow
<i>Pica pica</i>	Magpie
<i>Sturnus vulgaris</i>	Starling
<i>Troglodytes troglodytes</i>	Wren
<i>Turdus merula</i>	Blackbird
<i>Turdus merula</i>	Blackbird
<i>Turdus philomelos</i>	Song thrush

Fauna Mammalia, Invertebrata and Reptilia

<i>Astacus pallipes</i>	White clawed crayfish
<i>Lacerta vivipara</i>	Common Lizard
<i>Plecotus auritus</i>	Brown long-eared bat
<i>Vulpes vulpes</i>	Fox

Fungi and Lichens

<i>Coprinus comatus</i>	Shaggy inkcap
<i>Hypholoma fasciculare</i>	Sulphur tuft
<i>Parmelia caperata</i>	A lichen
<i>Physconia distorta</i>	A lichen
<i>Rhytisma acerinum</i>	Tar-spot fungus
<i>Xanthoria parietina</i>	Yellow-scales lichen

APPENDIX 7 TULSK STEERING GROUP AND CONSULTEES

- Fr. Austin McKeon, Tusk Action Group
- Pauline Jones, Tusk Cemetery Committee
- Daniel and Andrew McGonigle, Landowners
- Eugene O'Connor, Landowner
- Lora O'Brien, Manager, Cruachan Aí Visitors Centre
- Cllr. Sean Beirne
- Cllr. Tom Crosby
- Laura Claffey, Planning Archaeologist, National Monuments Service, DoEHLG
- Dr. Niall Brady, The Discovery Programme
- Jack Devine, County Roscommon Heritage Forum
- Mary O'Connell, County Roscommon Heritage Forum
- Kirsty Murphie, Acting Heritage Officer, Roscommon County Council
- Nollaig Feeney, Heritage Officer, Roscommon County Council
- Katriona Byrne, Conservation Officer, Roscommon County Council
- Tracy Davis, Forward Planning, Roscommon County Council
- Jacinta Carlos, Roads Section, Roscommon County Council
- Mark Mellotte, Community and Enterprise, Roscommon County Council
- Michael O'Boyle, Area Engineer, Roscommon County Council

During the preparation of this CMP Gifford consulted with;

- Mary Batchelor, Local resident
- Paul Brown, Assistant Area Engineer, Roscommon County Council
- Eamonn Collins, Collins Boyd Engineering, consulting engineers to Daniel and Andrew McGonigle
- Seamus Conway, Tusk Action Group
- Mike Croghan, Cruachan Aí Centre
- Joe Cunnane, Local resident
- Aidan Curran, Local resident, and owner of Carnfree
- Hubert Durr, Tusk Cemetery Care Group
- Frank Flanagan, Planning Officer, Roscommon County Council
- Jim Ganly, Roscommon Historical and Archaeological Society
- Grace Greer, Navan Visitors Centre

- Finian Matthews, Principal Officer, National Monuments Service, DoEHLG
- Conor Newman, Chairman, The Heritage Council and the Department of Archaeology, The National University of Ireland Galway
- Dr. Kieran O'Connor, Department of Archaeology, The National University of Ireland Galway
- Fionnuala Parnell, Office of Public Works, Department of Environment, Heritage and Local Government
- Peter Wrafter, Roscommon County Enterprise Board

APPENDIX 8 LEGAL STATUS OF THE TULSK MONUMENTS, AND GRID REFERENCES

Legal Status

Tulsk Priory and Graveyard

Religious House - Dominican Friars (Recorded Monument [RMP] RO022-114006-)

Graveyard (Recorded Monument [RMP] RO022-114008-)

Tomb - Altar (Recorded Monument RO022-114007-)

Castle - Tower House (Recorded Monument [RMP] RO022-114009-)

Architectural Fragment(s) (Recorded Monument [RMP] RO022-114013-)

Burial Vault, Grace Family (Protected Structure, 02200084)

Burial Vault, Taaffe Family (Protected Structure, 02200085)

Tulsk Abbey (Protected Structure, 02200083)

Tulsk Castle

Castle - Tower House (Recorded Monument RO022-114001-)

Tulsk Earthwork

Ringfort-Rath (Recorded Monument [RMP] RO022-114003-)

Well (Recorded Monument RO022-114004-)

Castle - Tower House possible (Recorded Monument RO022-114011-)

House - Indeterminate Date possible (Recorded Monument RO022-114012-)

The Study Area

Road - Road/Trackway (Recorded Monument RO022-114010-)

Fulacht Fia (Recorded Monument RO022-116----) NGR 183505, 281094

Fulacht Fia (Recorded Monument RO022-115----) NGR 183494, 281181

Ringfort - Rath (Recorded Monument RO022-112002-) NGR 183240, 281864

Ringfort - Rath (Recorded Monument RO022-112001-) NGR 183242, 281897

Town (Recorded Monument RO022-114----) NGR 183264, 281131

Pitfield (Recorded Monument RO028-018001-) NGR 183350, 280560

Ringfort - Rath (Recorded Monument RO028-022----) NGR 183830, 280230

Mill – Unclassified (Recorded Monument RO022-113003-), NGR 183107, 280880

Field System (Recorded Monument RO022-113001-), NGR 183180, 280889

Road – Road/Track (Recorded Monument RO022-113002-), NGR 183299, 280863

Tulsk Priory and Graveyard NGR	Eastings 183304	Northings 280979
Tulsk Castle NGR	Eastings 183339	Northings 281125
Tulsk Earthwork NGR	Eastings 183411	Northings 281069

APPENDIX 9 MANAGED RURAL WALKWAYS

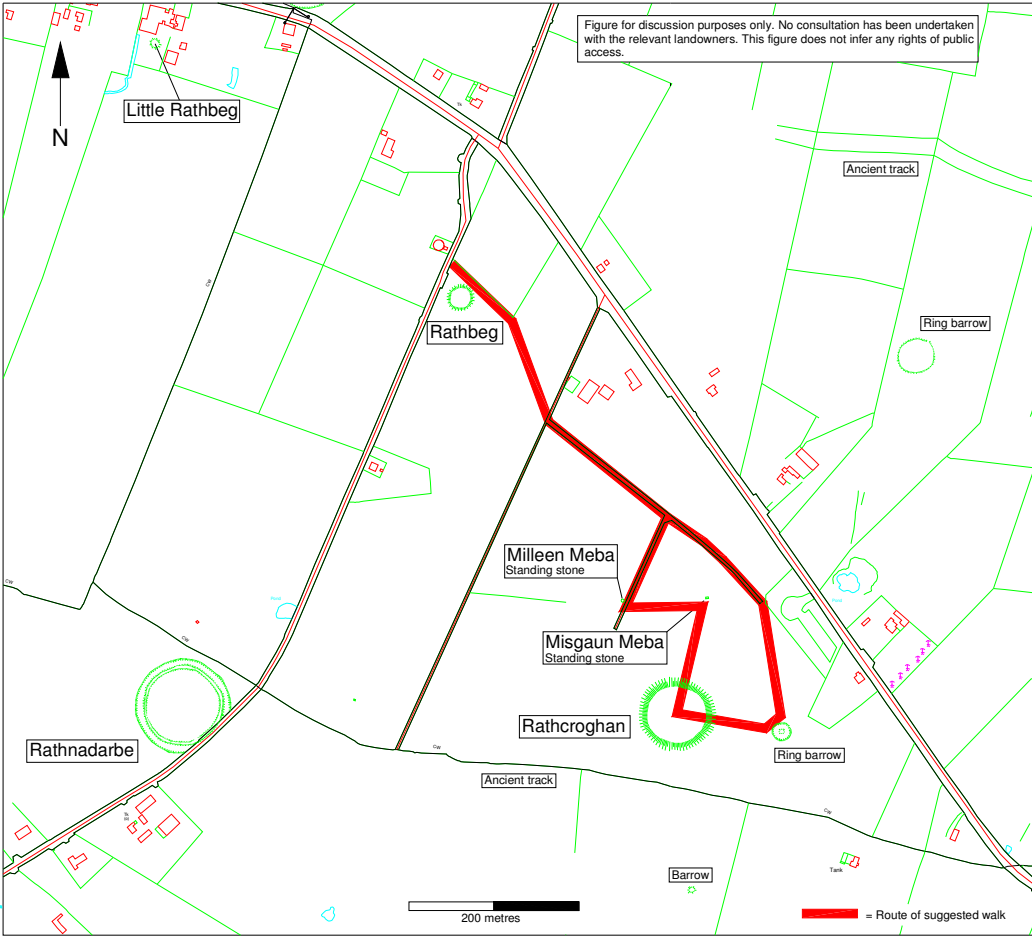


Figure A5: Managed Rural Walk 1

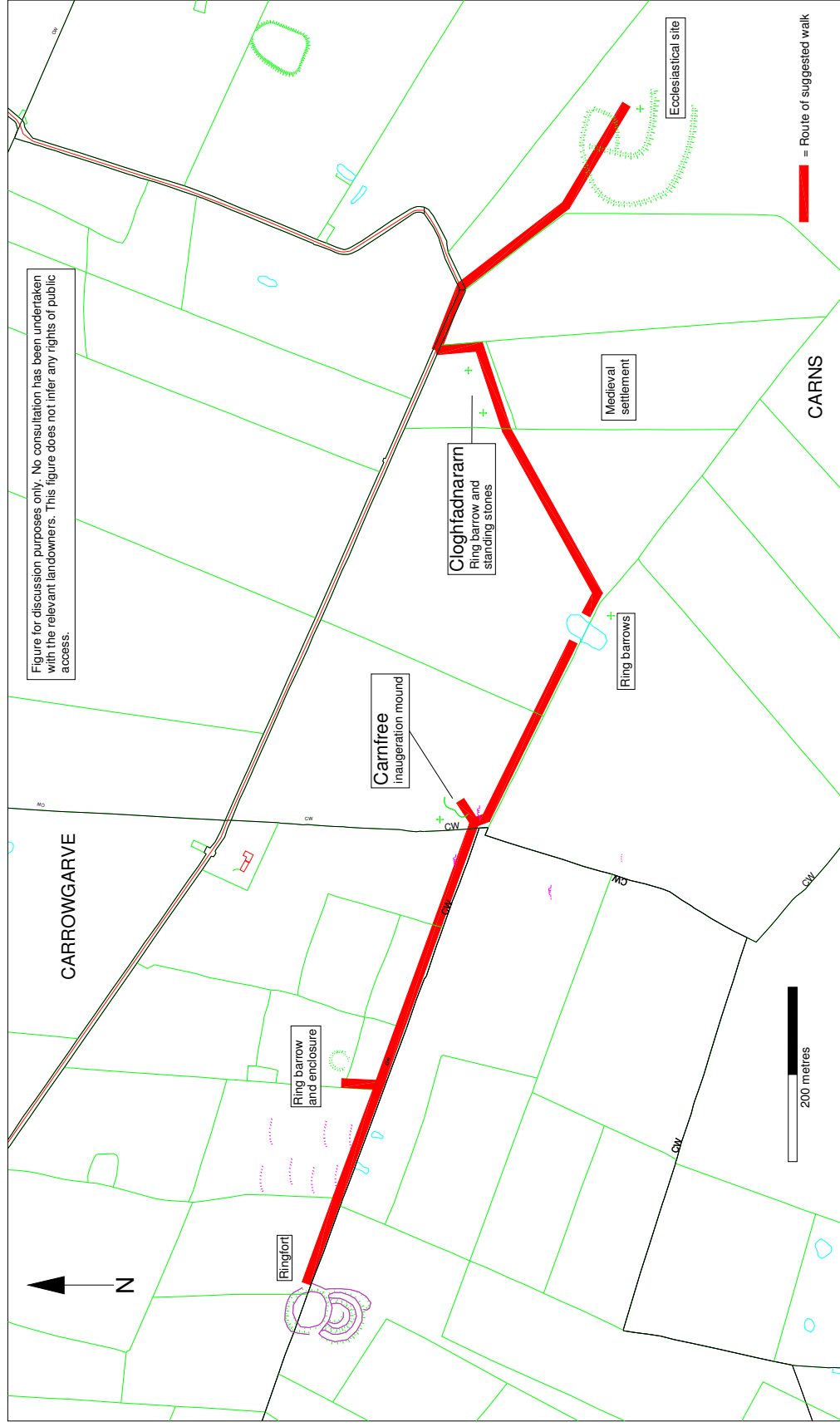


Figure A6: Managed Rural Walk 2

APPENDIX 10 COST ESTIMATES FOR CONSERVATION WORK PACKAGES

Feasibility Estimate Nr 1

Relating to:

Tulsk Gaelic Medieval Complex Co Roscommon



Potter Raper Partnership
Julco House
26-28 Great Portland Street
London
W1W 8QT

Tel: 020 7436 5005
Fax: 020 7436 5115
Date: January 2009

Job Nr: L9405

Tulsk Gaelic Medieval Complex- Co Roscommon

INTRODUCTION

This feasibility estimate incorporates the Conservation Management Plan recommendation prepared by Gifford, including specification (where stated) and scope of envisaged works as issued to us and discussed with Gifford and is priced at current level 1st quarter 2009. It is assumed that the tender will be sought by competitive tender using a number of small works packages as indicated by Gifford.

Scaffolding has been included within the estimate

FORWARD LOOK

The market is in turmoil and has fallen extensively. The published indices has little history to base the under currents of change and even the experts are unsure as to the extent or depth that the recession will go. We therefore having priced the works at the local current rates feel it unwise to predict any further change within the market as indicators are predicting various and inconsistent levels of change over the next year. Our advice at this stage is not to assume that any change in the markets already lower in Ireland should be expected to significantly drop further in the current year for this type of work and that in the further years we may even see increased costs again passed on in tenders. We have therefore provisionally allowed a notional 3% increase in year 2 and 5% gross for the year 3 works.

Euro/Pound

The base estimate was priced at local levels and then converted to pounds before being used in the attached summary. The total price we have converted back to euros as discussed.

EXCLUSIONS

Please note that the estimate is exclusive of the following:

- The cost plan assumes that The works are carried out in a number of work phases as indicated by Gifford

- We have not been informed of the presence of any hazardous material that may exist within the walls or ground and no knowledge exists that they may be present. No allowances have therefore been incorporated within this estimate.

- It has been assumed that access will be granted or exists to all areas for which works are proposed and that any fees in connection with gaining access have therefore not been incorporated within this estimate, we have however allowed for liaison of the contractor with the individual land owners.

- Building Regulation charges
- Finance charges
- VAT
- Professional fees and surveys

Tulsk Gaelic Medieval Complex- Co Roscommon

SUMMARY

ITEM	REPAIR REFERNCE	Priority 1 WITHIN 1 YEAR	Priority 2 WITHIN 2 YEARS	Priority 3 WITHIN 3YEARS
		£	£	£
1	Plate Nr 1	8,742.00	4,484.00	9,120.00
2	Plate Nr 2	1,776.00	488.00	-
3	Plate Nr 3	7,002.00	-	4,901.00
4	Plate Nr 4	15,115.00	-	10,794.00
5	Plate Nr 5	-	-	612.00
6	Plate Nr 6	-	-	2,730.00
7	Plate Nr 7	4,522.00	-	-
8	Plate Nr 8	3,172.00		2,009.00
9	Plate Nr 9	19,430.00	-	-
10	Plate Nr 10	-	-	5,483.00
11	Plate Nr 11	-	-	10,495.00
12	Plate Nr 12	-	2,628.00	1,238.00
13	Plate Nr 13	12,500.00	16,691.00	-
15	Provision for further works to be scheduled	15,000.00	5,000.00	10,000.00
		87,259.00	29,291.00	57,382.00
16	Preliminaries	29,000.00	10,000.00	19,000.00
17	Contingency @ 10%	11,700.00	3,930.00	7,640.00
18	Forward look See Note	-	1,300.00	4,300.00
	Gross Construction Cost £	127,959.00	44,521.00	88,322.00
	Gross Construction Cost in Euros	145,500.00	50,600.00	100,400.00

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE (£)	TOTAL (£)
	<u>Urgency/Time Scale - 1 Year</u>				
R3	Tower house east elevation, junction with north nave wall Rake out joints, deeply repoint and reset stones in lime mortar to 600mm thick wall	1	item	2,232.00	2,232.00
R5	Tower house wall top Remove all ivy and vegetation from top of wall, rake out joints of debris and deeply repoint. Upper courses (1m height) rebbed top course 1200mm deep. Repoint and pack with limestone galesttes where necessary, the arch over the fireplace	1	item	3,090.00	3,090.00
R7	Tower house wall junction with nave north wall Pin the wall junction with stainless steel proprietary Cinten archors	1	item	3,420.00	3,420.00
	subtotal				8,742.00
	<u>Urgency/Time Scale - 2 Years</u>				
R1	Tower house wall, east elevation, southern end Remove dense ivy, stems 100mm dia and repoint corbelling stones in former chimney	1	item	666.00	666.00
R2	Tower house wall east elevation centre area Remove moderate ivy 20mm-50mm dia	1	item	1,548.00	1,548.00
R4	Tower house east elevation, top south corner Remove tree 150-200mm dia, cut back, remove stones by hand, dig out roots, treat with chemical, relay stones to wall 3m x 3m x 1m deep	1	item		1,770.00
R6	Tower house wall Record and stack stones at base of wall	1	PS	500.00	500.00
	subtotal				4,484.00
	<u>Urgency/Time Scale - 3 Years</u>				
R11	Nave south wall, east of tower house wall (8m high section) Cut, spray and remove dense ivy both sides of wall, stems 100mm dia. Rake out joints back to sound mortar and deeply repoint an area of 24m2 with lime mortar	1	item	9,120.00	9,120.00
	subtotal				9,120.00
	TO SUMMARY £				22,346.00

Plate NR. 2

5

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 3

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE (£)	TOTAL (£)
	<u>Urgency/Time Scale - 1 Year</u>				
R13	Tower house wall West elevation Lower window				
	Replace left missing jamb stone with fallen stones, matched if possible and rebed stones around window	1	item	2,500.00	2,500.00
	provisional allowance for additional stone lost or found to be unsuitable	1	PS	1,000.00	1,000.00
R14	Tower house wall West elevation Upper window				
	Rebed and repoint upper window stones	1	item	1,000.00	1,000.00
R15	Tower house wall West elevation junction with north wall				
	Repair wide joints by raking out, insert galettes and repoint to 1200 thick wall	6	m2	1,470.00	1,470.00
R16	Tower house wall West elevation junction with north				
	Rake out and repoint with galettes vertical joint	1	item	1,032.00	1,032.00
	subtotal				7,002.00
	<u>Urgency/Time Scale - 3 Years</u>				
R17	Tower house wall West elevation recess				
	Clear out decayed roots, rake out debris, partially rebuild	1	item	917.00	917.00
R17a	Tower house wall West elevation				
	Top south section of wall not visible; allow to remove ivy, rake out and repoint	1	item	3,984.00	3,984.00
	subtotal				4,901.00
	TO SUMMARY £				11,903.00

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 4

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE (£)	TOTAL (£)
R18	<u>Urgency/Time Scale - 1 Year</u> Nave south wall Window arch Access arch, temporary prop arch, remove ivy, pack between stones with stone galettes and dry pack with lime mortar	1	item	1,199.00	1,199.00
R19	Nave south wall top Remove ivy and vegetation along the top of the wall, lift and rebed loose stones in top course on lime mortar bed, repoint	1	item	6,412.00	6,412.00
R20	Nave south wall Window sill Remove ivy and vegetation from window sill, repoint and rebed stones on sill. Allow for repointing of window jambs	1	item	7,504.00	7,504.00
	subtotal				15,115.00
R12	<u>Urgency/Time Scale - 3 Years</u> Nave South Wall; east of tower house wall, (8m high section) Remove ivy from top horizontal surface of wall, rebuild, rebuild top course of wall bedded in line mortar	1	item	4,900.00	4,900.00
R21	Nave south wall North elevation east of arch Rebuild missing parts of wall at low level and mid level	1	item	3,330.00	3,330.00
R25	Nave south wall South elevation, east of window to tower house wall Remove ivy, deeply rake out joints and repoint	1	item	2,064.00	2,064.00
R26	Nave south wall South elevation Collect and record stones on the ground	1	PS	500.00	500.00
R27	Nave south wall South elevation Rake out and repoint at low level	1	item	130.00	130.00
	subtotal				10,794.00
	TO SUMMARY £				25,909.00

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 5

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE (£)	TOTAL (£)
R22	<u>Urgency/Time Scale - 3 Years</u> Nave south wall column Rake out crack and repoint crack with lime mortar	1	item	204.00	204.00
R41	Transept west wall East elevation Generally good condition, no ivy cover, approximately 3.5m high; rake out and deeply repoint	1	item	408.00	408.00
	TO SUMMARY £				612.00

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 6

[illegible]

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 7

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE (£)	TOTAL (£)
R28	<p><u>Urgency/Time Scale - 1 Year</u></p> <p>Nave south wall /transept north gable wall upper triangle</p> <p>Provide access up to approx 8m, (do not prop off wall). Rake out and repoint both sides of wall. Survey and produce measurements and drawings for out of plumbness</p>	1	item	4,522.00	4,522.00
	TO SUMMARY £				4,522.00

Plate NR. 8

11

Plate NR. 9

12

Plate NR. 10

13

Plate NR. 11

14

Plate NR. 12

15

Tulsk Gaelic Medieval Complex- Co Roscommon

Plate NR. 13

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE (£)	TOTAL (£)
R46	<u>Urgency/Time Scale - 1 Year</u> Grace tomb Remove the trees and vegetation and relay and replace missing roof flags, dress eaves details with lead to waterproof junction	1	PS	12,500.00	12,500.00
					12,500.00
R47	<u>Urgency/Time Scale - 2 Years</u> Grace tomb Repoint buttresses and joints between buttress and wall	6	nr	350.00	2,100.00
R48	Grace tomb Stone by stone, remove loose/displaced stones and rebed flush. Install remedial wall ties to restrain wall cladding	1	item		14,591.00
					16,691.00
	TO SUMMARY £				29,191.00